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PRELIMINARY ASSESSMENT  
PA

NUDELMAN & SON, INC.  
ORD # 027744093  
2707 N.W. NELA St.  
PORTLAND, OREGON 97210

March 30, 1989

Prepared for: U.S. Environmental Protection Agency  
Region 10  
Superfund Program Management Section  
Seattle, Washington 98101

Prepared by: Oregon Department of Environmental Quality  
Environmental Cleanup Division  
Portland, Oregon 97204-1334

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NUDELMAN AND SON INC.  
PRELIMINARY ASSESSMENT  
ORD # 027744093

INTRODUCTION

Pursuant to Cooperative Agreement V000332-01, Amendment 2 between the U.S. Environmental Protection Agency (EPA) and the Oregon Department of Environmental Quality (DEQ), the DEQ conducted a Preliminary Assessment (PA) of the site known as Nudelman and Son Inc.

PAs are intended generally to identify potential hazards at a site, identify sites that require emergency action, and to establish priorities for sites requiring in-depth investigations (Site Inspections). The PA is based on readily available information about the site and is not a full investigation or characterization of the site.

The Nudelman and Son Inc. PA is conducted to identify potential public health and/or environmental threats related to the site. The PA is based on data derived from the sources listed in "J" below. Information gathered during the PA is summarized in the attached EPA form 2070-12, as attachment 1.

A. GENERAL SITE DATA

Site Name: Nudelman & Son Inc.  
Location: 2707 N. W. Nela St.  
Portland, Oregon 97210  
Owner: Stanford J. Nudelman  
2707 N.W. Nela St.  
Portland, Oregon 97210  
Operator: Same as above  
Phone: (503) 226-4051

B. SITE DESCRIPTION

The site is the location of a scrap iron and metal salvage and brokerage facility. The site is approximately 1.54 acres in size and is located at 2707 N.E. Nela, in the northwest industrial area of Portland.

The site is in Township 1N, Range 1E, Section 29 (Attachment 2). A map showing the location of the site is in attachment 3.

The site is surrounded by warehouses and the main activity in the area is commercial/industrial. The north and west sides of the

NUDELMAN AND SON INC.  
PRELIMINARY ASSESSMENT  
ORD # 027744093

facility have access roads or alleys. These alleys have no exit, they end at or near the end of the property. The alley to the north also serves as a parking lot. There are parking spaces along the warehouse wall to the north of the alley, and three truck loading doors for the warehouse. This warehouse is part of the Davis Industrial Park. The access road to the west is also bordered by a warehouse. There is a fence around all sides of the facility. On the west and north sides of the fence there is scrap and transformers that are outside of the fence. There is only one gate and it is on the north side of the property. The east and south sides of the facility are bordered by a beer distributing facility and a rubber mill. A map showing the relationship of the facilities around the site is in attachment 3.

C. OWNERSHIP INFORMATION

The property is owned and operated by Nudelman and Son Inc. They have been the owner since 1965. Previous use of the property possibly includes a crematory, and the Portland Garbage Incinerator and Landfill.

D. SITE HISTORY AND POTENTIAL PROBLEMS

The site is formerly part of Guilds Lake. Guilds Lake was a man made lake created in the historical flood plain of the Willamette River. The lake was later filled in around the mid 1920's (attachment 8).

"The earliest recorded facility in the site area is a crematory operated by the City of Portland at the "Foot of 25th". As indicated by the Portland of City plumbing permit files, the crematory was located on the same property as the Portland Garbage Incinerator" (attachment 8). The incinerator was also associated with a landfill to the northwest. It is likely that the incinerator and landfill were closed before 1948 (Attachment 8).

Upon reviewing an aerial photograph of the area from 1936, it is apparent that the incinerator was actually to the east of the Nudelman and Son facility. Incinerator ash was deposited between the incinerator and what appeared to be the Nudelman and Son facility property. The Nudelman and Son property appeared to be covered with debris. An aerial photograph from 1961 showed the incinerator, ash, and debris to be gone and the Nudelman and Son facility appeared to be being used as a parking lot (9). Upon review of fire insurance maps from 1958, the Nudelman and Son facility was operated as a warehouse for paper goods (10).

NUDELMAN AND SON INC.  
PRELIMINARY ASSESSMENT  
ORD # 027744093

Northwest Geological Services Inc. identified dikes around the north and west sides of property that they investigated in October of 1988. The property that they investigated is immediately east of the Nudelman and Son facility, so the dikes would have separated the two pieces of property. The property investigated by Northwest Geological Services Inc. was the property that formerly was the garbage incinerator. This study also identifies the landfill area as being to the east and south of the dikes (figure 3, geologic cross sections of attachment 8).

The site was reported to the Superfund Program in October of 1988, after a Toxic Substance Control Act (TSCA) inspection report filed in August of 1988, recommended the site be placed on CERCLIS for further evaluation (attachment 4). This facility was part of an EPA-TSCA, scrap and salvage inspection scheme. EPA Oregon Operations Office has also received calls from concerned citizens regarding the salvage of transformers and the spilling of oil. The EPA conducted the inspection on August 4, 1988. During the investigation, an EPA inspector requested records for the transformers that were observed to be on the property. No PCB (polychlorinated biphenyl) test results could be found in the file (attachment 4).

The EPA inspector took a site tour and reported that the site was totally covered with scrap. The front half of the site was covered with scrap that was eight feet deep in some areas. Blackberries have nearly taken over the site. Large stains were on the ground where some "CAPACITOR-POTENTIAL-TRANSFORMER" units were broken open or dismantled. Oil had run onto the ground from one unit. Three samples were collected that included a soil sample, a wipe sample, and an oil sample taken from a capacitor. The only soil sample collected consisted of heavily stained ground samples from four locations along the ground. This sample detected PCBs at 1.24 parts per million (attachment 4).

Stanford Nudelman maintains that he never had any PCB contaminated equipment, especially from the Bonneville Power Administration (BPA), (attachment 4). The BPA also states that the pieces of equipment that they have been able to track as sold to Nudelman were not contaminated with PCBs greater than 1 part per million, (attachment 5).

Administrative action was instituted pursuant to Section 16(a) of the Toxic Substance Control Act (TSCA). The complaint alleges violations of federal regulations of the use and/or disposal of PCBs (attachment 6).



NUDELMAN AND SON INC.  
PRELIMINARY ASSESSMENT  
ORD # 027744093

The EPA has proposed an Agreed Order on March 21, 1989. The proposed order withdraws Violation Two, a disposal violation related to the CAPACITOR-POTENTIAL-TRANSFORMER units. The violation had assumed that the transformer bushings were PCB contaminated. However, it was later discovered that the bushings used oil that was non-PCB (Dyala-D). Violations four and five were related to improper marking of PCB items and storage areas that should have been marked or proven to contain less than 50 ppm of PCBs. The original Proposed Civil Penalty has been reduced from \$14,000 to \$8,100 due to withdrawal of violations and reductions in the amount assessed because of clarification of the facts. The proposed civil penalty now deals strictly with the issues surrounding the one transformer that contains PCBs greater than 50 ppm and less than 500 ppm. The violations cover the leaking of the transformer (spill/disposal), the area where the transformer is stored (does not comply with storage regulations), improper marking of the area where the transformer is stored and the marking of the transformer itself, and not keeping adequate records. The facility owners have agreed to remove the one transformer. Due to the complications of removing the transformer, the facility has until August of 1989 to have it removed (12). The other transformers that were purchased from the BPA contain less than one ppm of PCBs.

Stanford Nudelman stated in an interview that they only bought transformers from the BPA and they only bought them for one year about five years ago. They discontinued the practice because there was not enough material to salvage that would interest their customers. The transformer salvage program was not very profitable (attachment 9). The oil from the transformers was removed by Harbor Oil before they were brought to the site (attachment 13). The business is moving away from bringing materials to the site for dismantling and is currently serving more as a brokerage firm (attachment 7).

E. WASTE CHARACTERISTICS AND CONTAINMENT

The only hazardous substances known to be at the site are polychlorinated biphenyls (PCBs): PCBs are generally considered to be chemically inert. They are insoluble in water, but soluble in most inorganic solvents. They resist oxidation and are extremely fire resistant. PCBs tend to accumulate and persist in the environment. PCBs can accumulate in the food chain (1). PCBs exhibit both acute and chronic toxic effects primarily through the dermal, inhalation, and ingestion pathways of exposure. PCBs are suspect human carcinogens with the liver as the target organ (11).

Stanford Nudelman claims that they generate no waste and therefore have no waste storage areas (attachment 7). There is one

NUDELMAN AND SON, INC.  
PRELIMINARY ASSESSMENT  
ORD # 027744093

transformer on the facility that was tested for PCBs and the test results indicated that it contains 124 parts per million (attachment 9). Stanford Nudelman claims that the transformer has been at its current spot for twenty years. He is not sure where it came from, but it is definitely not one that they bought from the BPA (attachment 7). He has also contacted General Electric in regard to having the transformer removed properly (attachment 10). This transformer is inside the fenced in area. The EPA soil sample was a composite sample taken outside of the fence next to the access road to the west of the facility (attachment 4).

Federal regulations related to the cleanup of soil contaminated by a spill of PCBs, are to be cleaned to 25 ppm PCBs by weight (40 CFR Ch. 1, 761.125 (v), 7-1-87 edition). Oregon DEQ has a cleanup standard of 10 ppm or less for areas of limited public access (i.e., industrial area, forested area, limited access right-of way), (attachment 14).

F. DEMOGRAPHIC INFORMATION

	Number within Three Miles	Number within Four Miles
Domestic Wells	43	75
Irrigation Wells	11	29
	Population Potentially Impacted	Population Potentially Impacted
Domestic Wells X 3.8	163	285
Irrigation Wells X 1.5	17	43
Total Population	180	328

The closest residence is less than one-half mile from the site, the closest school is less than three-quarters of a mile, and the closest hospital is less than one mile away (attachment 2). The total population residing within three miles of the site is 39,808; the total population within four miles 50,160. The population of Portland as of July 1, 1987 is 418,910 (2).

G. ROUTES OF EXPOSURE

The information required to assess the groundwater, surface water air, and dermal contact exposure routes is presented below:

Groundwater

NUDELMAN AND SON, INC.  
PRELIMINARY ASSESSMENT  
ORD # 027744093

There has been no known release to groundwater.

The average annual precipitation in the area is 48 inches per year (attachment 11). The net precipitation for this area is approximately 24 inches per year (3).

The site is located on artificial fill material dredged from the Willamette River, and Recent Alluvium. The artificial fill was deposited during the filling in of Guilds Lake. The Recent Alluvium is mostly unconsolidated sand and silt, and some gravel. The area was on the historic floodplain of the Willamette River where deposits of Recent Alluvium are commonly less than fifty feet thick. The Recent Alluvium is related to a late episode of flooding of the Columbia River floodplain and are fine grained (5).

Under the Recent Alluvium are Quaternary Deposits (5) or Fluviolacustrine Deposits (6). These materials are mostly water transported and deposited gravels and sands that contain lesser amounts of silts and clays. These deposits are stratified and locally crossbedded. Below these deposits is the Troutdale Formation. This formation is a series of consolidated and partly consolidated beds of mudstone, sandstone, and shale. Columbia River Basalt underlies this formation. Columbia River Basalt is the oldest rock unit exposed in the Portland area. It is a layered series of lava flows and a few scattered interflow beds of tuff. It is approximately 700-800 feet thick (6).

Most groundwater is obtained from the Columbia River Basalt, the Troutdale Formation, and from the Unconsolidated Quaternary Deposits (5). The Troutdale formation is the most productive source, while the Fluviolacustrine deposits are the least important. Discharge of groundwater in the area is mainly by seepage to the Willamette River and by withdrawal from wells. Infiltration from the Willamette River probably is the principle source of recharge for the Troutdale Formation (6). "Under natural conditions, the water table was higher than the level of the river during most of the year and groundwater moved toward the river and discharged into it's channel. Conversely, during high stages the river normally reached levels considerably above those of the water table, and water infiltrated from the stream channel to the groundwater body. During recent years, however, the water table has declined at places to the extent that it remains lower than the river level throughout the year (6)." Groundwater velocities for the alluvial aquifer have been estimated to be a few feet per year. Velocities in the underlying Troutdale Formation and the Columbia River Basalt have not been measured, but are likely to be considerably higher than those in the alluvium (attachment 8, p.7).

NUDELMAN AND SON, INC.  
PRELIMINARY ASSESSMENT  
ORD # 027744093

The facility is located in the City of Portland Water District. The City of Portland supplements its Bull Run water supply system with a well field when needed. The wells that the City of Portland uses as backup are well to the east of the Willamette River and are not within four miles of the facility. Most wells that are in the area are used for industrial cooling or air conditioning.

Domestic and irrigation well use in the area is described under "F. DEMOGRAPHIC INFORMATION".

Well logs from the area around the S.J.Nudelman & Son facility show the following lithography;

0-30 feet: sand and gravel fill  
30-50 feet: silt  
50-100 feet: silt, gravel, and clay binder  
100-200 feet: sand, gravel, and clay  
>200 feet: basalt

In most wells, water was found thirty to thirty-five feet below ground level. However, water has been found at twenty feet below ground surface (figure 7 of attachment 8).

Additional information on wells in the area are included in attachment 12.

There are no wells on the S.J.Nudelman & Son facility.

#### Surface Water

There has been no known release to surface water.

The two year, twenty-four hour maximum precipitation event in the area is estimated to be three inches (4).

Impact to surface waters would not be likely to occur due to runoff because the topography is flat.

The nearest body of surface water is the Willamette River. The Willamette River is less than one-half of a mile from the facility.

Within two miles of the facility are intermittent and seasonal riverine and palustrine wetlands (8).

The facility is not within the 500 year or the 100 year floodplain of the Willamette River (7).

#### Air

NUDELMAN AND SON, INC.  
PRELIMINARY ASSESSMENT  
ORD # 027744093

There has been no known release to air.

The only contaminants of concern at this site are PCBs.  
Exposure through air of any contaminants at the site is unlikely.

Dermal Contact

Considering that there are transformers outside of the fence in an area that is easily accessible to the public, and there is some evidence indicating low levels of PCBs (1.2 ppm) in that area, potential for dermal contact exists.

H. PRIORITY ASSESSMENT

The S.J. Nudelman and Son Inc. facility should be considered for no further action by the EPA Superfund Program. This is due to the little use of groundwater in the area, the topography of the site, and the low levels of contaminants at the site.

I. RECOMMENDATIONS

Followup by the state of Oregon to address the low level contamination of PCBs outside the facility's fence may be necessary. Dermal contact is a threat to anyone using the access road. However, the EPA cleanup standard for soils contaminated by spills is 25 ppm and the Oregon standard is 10 ppm. Although the levels of contamination appear to be low, sampling at the site has been very limited. It should also be considered that the soil samples were taken from the areas that visual observations indicated were stained and potentially the most contaminated. Followup is also recommended by the EPA TSCA Program to ensure that the transformer removal is completed and that there are no more PCB transformers on the property. The facility is scheduled for future TSCA-EPA inspections.

J. REFERENCES

1. Kirk-Othmer, Concise Encyclopedia of Chemical Technology, John Wiley & Sons Inc., 1985
2. Portland State University, Center for Population Research
3. Kelly Redmond PhD., State Climatologist, Oregon State University, Corvallis.
5. Trimble, D.E., 1963, Geology of Portland, Oregon and adjacent areas: Geological Survey Bulletin 1119.

NUDELMAN AND SON, INC.  
PRELIMINARY ASSESSMENT  
ORD # 027744093

6. Brown, S.G., 1963, Problems of Utilizing Ground Water in the West Side Business District of Portland Oregon: U.S.Geological Survey, Water-Supply Paper 1619-O.
7. Federal Emergency Management Agency, National Flood Insurance Program Floodplain Map, Panel 35
8. U.S. Dept. of Interior, Fish & Wildlife Service National Wetlands Inventory Map, Portland-Oregon
9. U.S. Army Corps of Engineers, Portland, Oregon, Maps: 61-3755- November 6, 1961, 36-5867-May 10, 1936.
10. Sanborn Fire Insurance Maps, 1908 updated 1958
11. Sax, Irving, Dangerous Properties of Industrial Chemicals, Sixth Edition, Van Nostrand Reinhold Co., 1984
12. Deborah Hilsman, U.S.E.P.A., Office of Regional Counsel

ATTACHMENT 1: EPA form 2070-12 "Preliminary Hazardous Waste Site Preliminary Assessment"

ATTACHMENT 2: U.S.G.S. Topographic map : Portland Oreg.-Wash. 7.5 minute series, 1961 (revised 1970 & 1977), SW/4 Portland 15' quadrangle.

ATTACHMENT 3: Site map and location of facility

ATTACHMENT 4: TSCA Inspection Report, EPA-Oregon Operations Office, August 10, 1988

ATTACHMENT 5: Department of Energy, Bonneville Power Administration, Letter received by EPA-OOO on August 12, 1988

ATTACHMENT 6: Complaint and Opportunity for Hearing, United States Environmental Protection Agency Before the Regional Administrator, Region 10, Docket No. 1088-09-33-2615

ATTACHMENT 7: Summary of interview conducted on March 14, 1989 by Michael Zollitsch, ODEQ

ATTACHMENT 8: Preliminary Assessment of Potential Contamination 2615-2619 N.W. Industrial St., Guilds Lake Area, Portland, Oregon, 25 October 1988, Northwest Geological Services Inc.

NUDELMAN AND SON, INC.  
PRELIMINARY ASSESSMENT  
ORD # 027744093

ATTACHMENT 9: Laboratory Data on analysis of Transformer Oil

ATTACHMENT 10: Estimate From General Electric Services Division, to  
Provide Transformer Removal Service

ATTACHMENT 11: Fifteen Year Average Precipitation Patterns as  
Revealed by the Portland, Oregon Mesoscale  
Precipitation Network, J. William Wantz and Charles  
M. Feris, Bonneville Power Administration, and Nancy  
S. Larson, National Weather Service. August 15, 1983

ATTACHMENT 12: Well Logs, Oregon State Department of Water Resources

ATTACHMENT 13: Telephone Use Report

ATTACHMENT 14: Letter from Fred Hansen, Director of The Oregon  
Department of Environmental Quality, to Gary O'Neal,  
Director of the Air & Toxics Division, U.S. E.P.A.  
Region X, March 11, 1985.

ATTACHMENT 1





POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
OR D027744093

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) S.J. Nudelman & Son, Inc.		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 2707 N.W. Nela St.			
03 CITY Portland	04 STATE OR	05 ZIP CODE 97210	06 COUNTY Multnomah	07 COUNTY 091	08 CONG 03
09 COORDINATES LATITUDE 45 32 07 8		LONGITUDE 1 2 2 42 21 6			

10 DIRECTIONS TO SITE (Starting from nearest public road)

From Portland City Center, take Front St. North to Nicolai, turn Left and go to N.W. 29th. Turn right and go to Nela. At the end of Nela there is an access road to the left.

III. RESPONSIBLE PARTIES

01 OWNER (if known) Standford J. and Dorthy S. Nudelman		02 STREET (Business, mailing, residential) 2707 N.W. Nela Street			
03 CITY Portland	04 STATE OR	05 ZIP CODE 97210	06 TELEPHONE NUMBER 603, 226-4051		
07 OPERATOR (if known and different from owner) S.J. Nudelman and Son, Inc.		08 STREET (Business, mailing, residential) 2707 N.W. Nela St.			
09 CITY Portland	10 STATE or	11 ZIP CODE 97210	12 TELEPHONE NUMBER 503, 226-4051		

13 TYPE OF OWNERSHIP (Check one)

☒ A. PRIVATE ☐ B. FEDERAL: \_\_\_\_\_ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL  
☐ F. OTHER: \_\_\_\_\_ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☐ A. RCRA 3001 DATE RECEIVED: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ MONTH DAY YEAR ☐ B. UNCONTROLLED WASTE SITE (RCRA 103 c) DATE RECEIVED: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ MONTH DAY YEAR ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION <input checked="" type="checkbox"/> YES DATE <u>8 / 04 / 88</u> <input type="checkbox"/> NO MONTH DAY YEAR		BY (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify) CONTRACTOR NAME(S): _____			
02 SITE STATUS (Check one) <input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		03 YEARS OF OPERATION <u>1965</u> Present BEGINNING YEAR ENDING YEAR <input type="checkbox"/> UNKNOWN			

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Polychlorinated Phenyls (PCB)

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

One transformer onsite contains 124 ppm. PCB. Soil samples indicate soil contamination 1 ppm.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)

☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☒ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT Mike Downs		02 OF (Agency/Organization) Oregon Dept. of Environmental Quality		03 TELEPHONE NUMBER 503, 2295254	
04 PERSON RESPONSIBLE FOR ASSESSMENT Michael Zollitsch		05 AGENCY DEQ	06 ORGANIZATION ECD	07 TELEPHONE NUMBER 503, 229-6931	08 DATE 3 / 30 / 89 MONTH DAY YEAR

IDENTIFICATION  
OR D027744093

PHYSICAL STATES IN THE ATOMIC THEORY

☐ A SOLID                      ☐ E SLURRY  
☐ B POWDER, FINES        ☐ XF LIQUID  
☐ C SLUDGE                   ☐ G GAS  
☐ D OTHER \_\_\_\_\_ *Specify:*

## 02 WASTE QUANTITY AT SITE

Measure of waste generated

IONS \_\_\_\_\_

CUBIC YARDS unknown

NO OF CRUMS \_\_\_\_\_

## 03 WASTE CHARACTERISTICS 20, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 8

XA TOXIC  
 B CORROSIVE  
 C RADIOACTIVE  
 XD PERSISTENT

E SOLUBLE  
I INFECTIOUS  
G FLAMMABLE  
H IGNITABLE

H HIGHLY VOLATILE  
 E EXPLOSIVE  
 R REACTIVE  
 I INCOMPATIBLE  
 M NOT APPLICABLE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	CILY WASTE	unknown		
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

## IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

[illegible]

## V. FEEDSTOCKS (See Agencies for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

## VI. SOURCES OF INFORMATION (Cite specific references e.g. State Dept. Sample Analysis Reports.)

EPA-000 CERCLIS and TSCA files  
Oregon Historical Society (Sanborn Fire Insurance Map)  
U.S. Army Corp. of Engineers (Aerial Photos)  
S.J. Nudelman & Son, Inc.-Sample Analysis



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT

## PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

## I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
OR D027744093

## 1. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A GROUNDWATER CONTAMINATION 180-328 02 ☐ OBSERVED (DATE \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED  
One composite sample indicated PCB in soil greater than 1 ppm. First groundwater most likely to be found 20-30 feet below ground surface.

01 ☐ B SURFACE WATER CONTAMINATION 02 ☐ OBSERVED (DATE \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

No known or suspected release to surface water.

01 ☒ C CONTAMINATION OF AIR 02 ☐ OBSERVED (DATE \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

Potential exists when soils are both dry and disturbed.

01 ☐ D FIRE/EXPLOSIVE CONDITIONS 02 ☐ OBSERVED (DATE \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

No known or suspected

01 ☒ E DIRECT CONTACT 02 ☐ OBSERVED (DATE \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

Soils sampled were outside of the fence near access road.

01 ☒ F CONTAMINATION OF SOIL 1.5 02 ☒ OBSERVED (DATE 8/4/88) ☐ POTENTIAL ☐ ALLEGED  
03 AREA POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

Sample of soil indicates PCB present, at levels greater than 1 ppm.

01 ☐ G DRINKING WATER CONTAMINATION 02 ☐ OBSERVED (DATE \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED \_\_\_\_\_ 04 NARRATIVE DESCRIPTION


No known or suspected.

01 ☒ H WORKER EXPOSURE/INJURY 3 02 ☐ OBSERVED (DATE \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 WORKERS POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

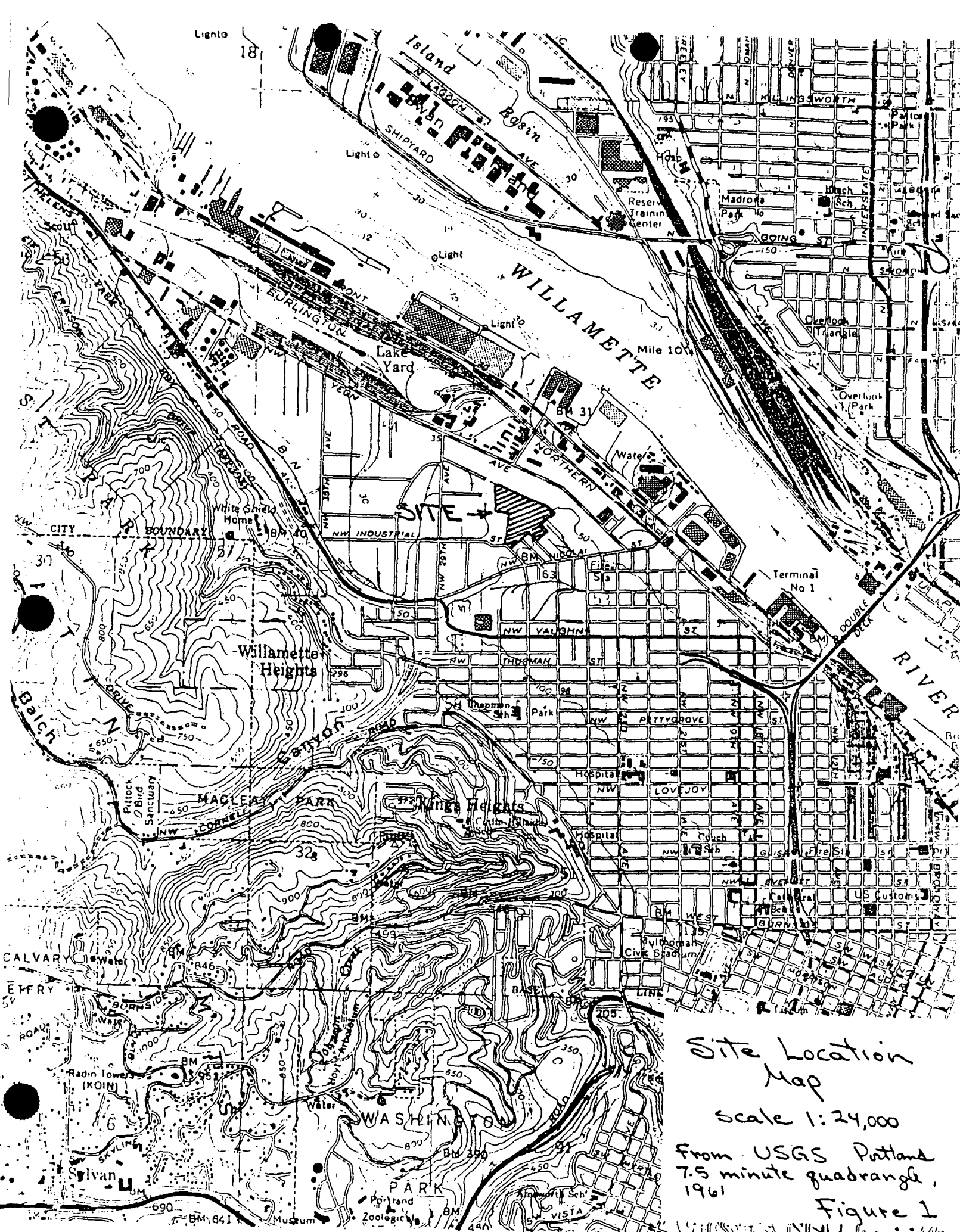
Potential for workers at site to come in contact with PCB oil or soil contaminated with PCB.

01 ☒ I POPULATION EXPOSURE/INJURY 39,000 02 ☐ OBSERVED (DATE \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

Anyone using access roads/ alleys where soil is contaminated with PCB.

	<b>POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT</b> <b>PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: left; padding: 2px;">I. IDENTIFICATION</th> </tr> <tr> <td style="width: 50%; padding: 2px;">01 STATE <b>OR</b></td> <td style="width: 50%; padding: 2px;">02 SITE NUMBER <b>D027744093</b></td> </tr> </table>	I. IDENTIFICATION		01 STATE <b>OR</b>	02 SITE NUMBER <b>D027744093</b>
I. IDENTIFICATION						
01 STATE <b>OR</b>	02 SITE NUMBER <b>D027744093</b>					
<b>II. HAZARDOUS CONDITIONS AND INCIDENTS</b> <small>(Continued)</small>						
01 <input type="checkbox"/> J. DAMAGE TO FLORA 04 NARRATIVE DESCRIPTION  No known or suspected	02 <input type="checkbox"/> OBSERVED (DATE: _____) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED					
01 <input type="checkbox"/> K. DAMAGE TO FAUNA 04 NARRATIVE DESCRIPTION <small>(Include names of species)</small>  No known or suspected	02 <input type="checkbox"/> OBSERVED (DATE: _____) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED					
01 <input type="checkbox"/> L. CONTAMINATION OF FOOD CHAIN 04 NARRATIVE DESCRIPTION  No known or suspected	02 <input type="checkbox"/> OBSERVED (DATE: _____) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED					
01 <input checked="" type="checkbox"/> M. UNSTABLE CONTAINMENT OF WASTES <small>(Spill/runoff, standing liquids/leaking drums)</small> 03 POPULATION POTENTIALLY AFFECTED: _____    04 NARRATIVE DESCRIPTION Since waste is not usually generated, there is no waste containment.	02 <input type="checkbox"/> OBSERVED (DATE: _____) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED					
01 <input type="checkbox"/> N. DAMAGE TO OFFSITE PROPERTY 04 NARRATIVE DESCRIPTION  No known or suspected	02 <input type="checkbox"/> OBSERVED (DATE: _____) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED					
01 <input type="checkbox"/> O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 04 NARRATIVE DESCRIPTION  No known or suspected	02 <input type="checkbox"/> OBSERVED (DATE: _____) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED					
01 <input type="checkbox"/> P. ILLEGAL/UNAUTHORIZED DUMPING 04 NARRATIVE DESCRIPTION  No known or suspected.	02 <input type="checkbox"/> OBSERVED (DATE: _____) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED					
05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS   						
<b>III. TOTAL POPULATION POTENTIALLY AFFECTED:</b> <u>39,000</u>						
<b>IV. COMMENTS</b>  No further action is warranted by the EPA Superfund program. Followup from EPA TSCA Program to ensure proper disposal of the PCB Transformer, and Oregon DEQ Addressing the low level contamination is recommended.						
<b>V. SOURCES OF INFORMATION</b> <small>(Cite specific references e.g. state files, sample analysis reports)</small>  EPA-000 CERCLA and TSCA files S.J. Nudelman & Son, Inc.						

ATTACHMENT 2



Site Location  
Map

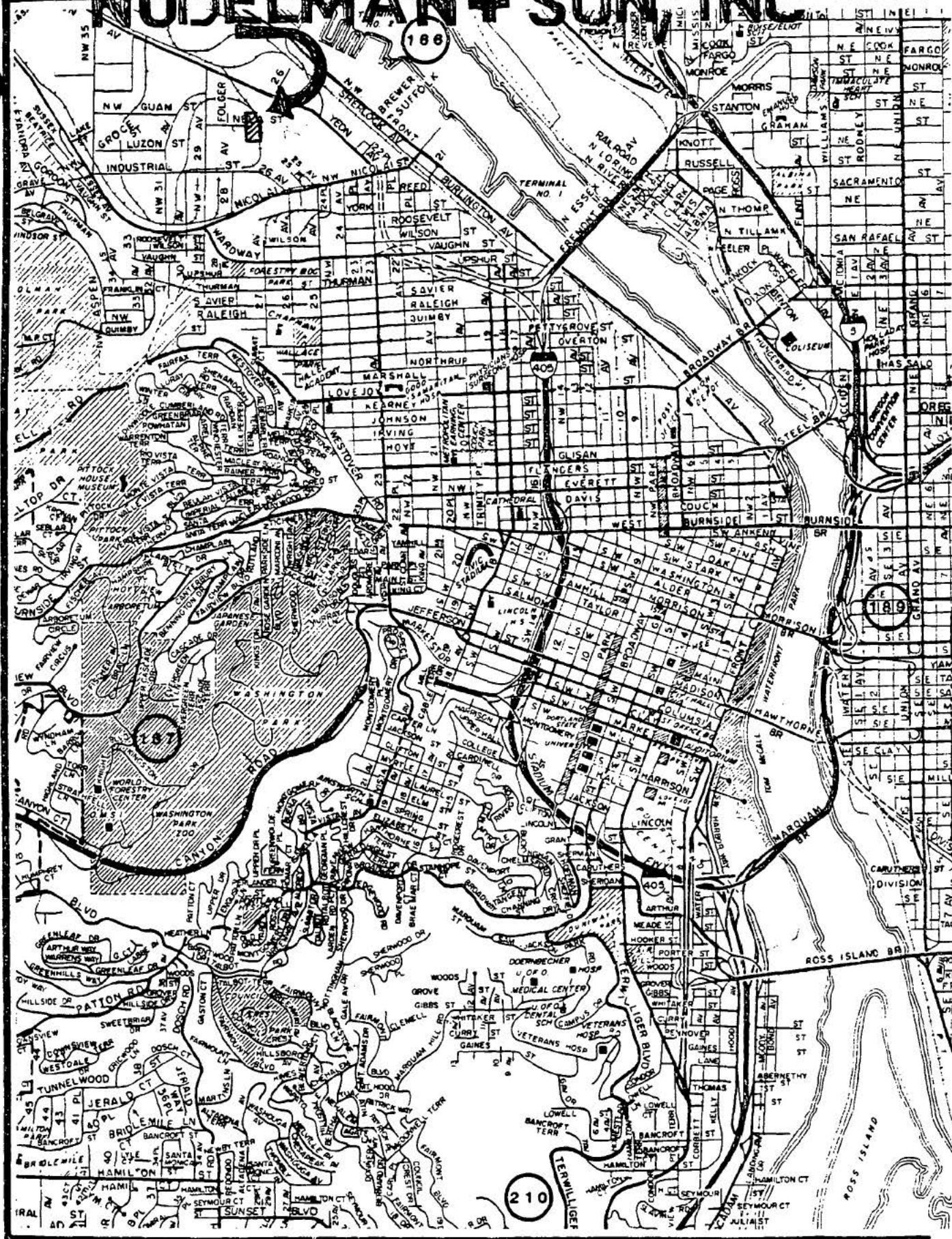
Scale 1:24,000

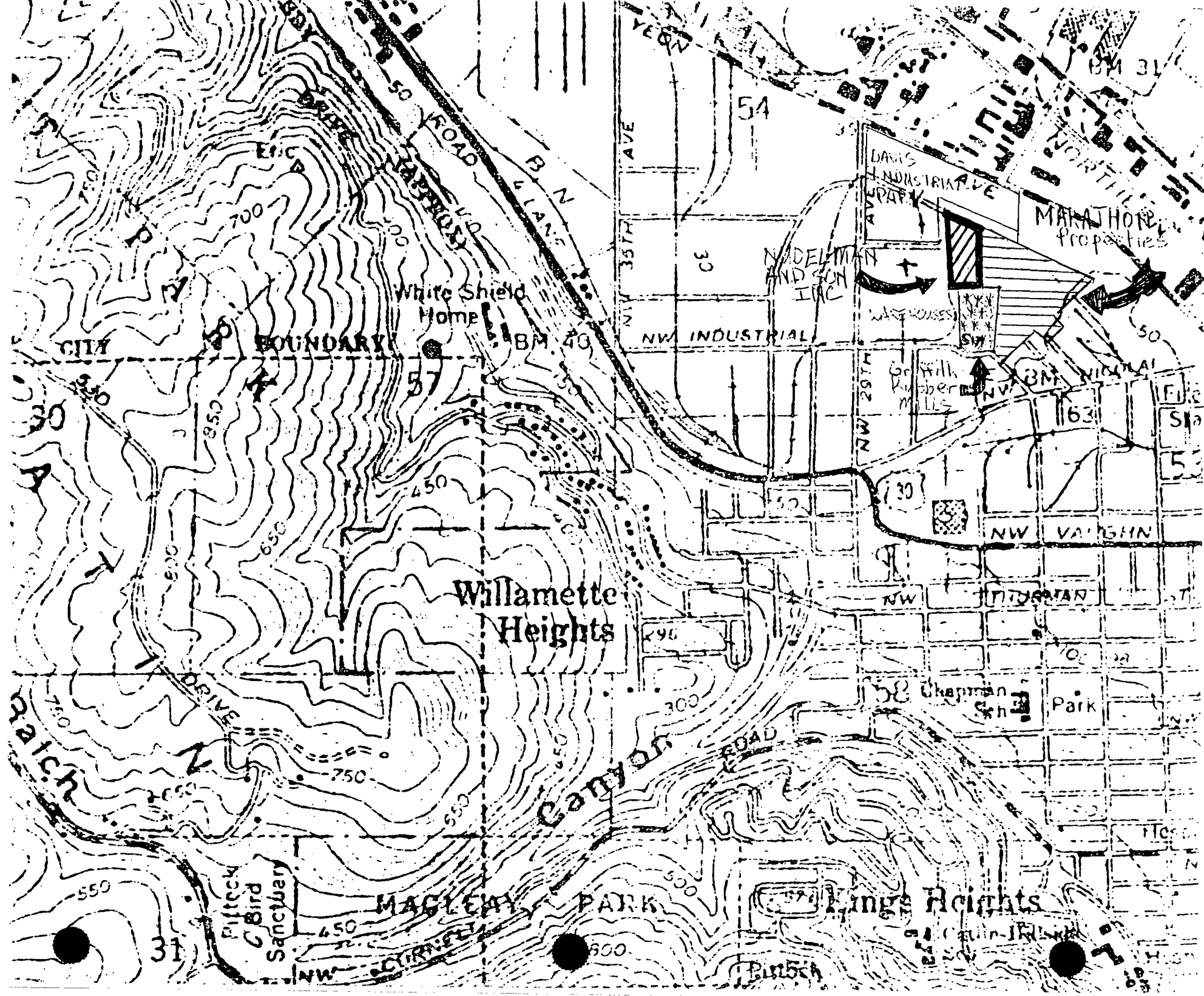
From USGS Portland  
7.5 minute quadrangle,  
1961

Figure 1



# NUDELMAN & SON, INC.



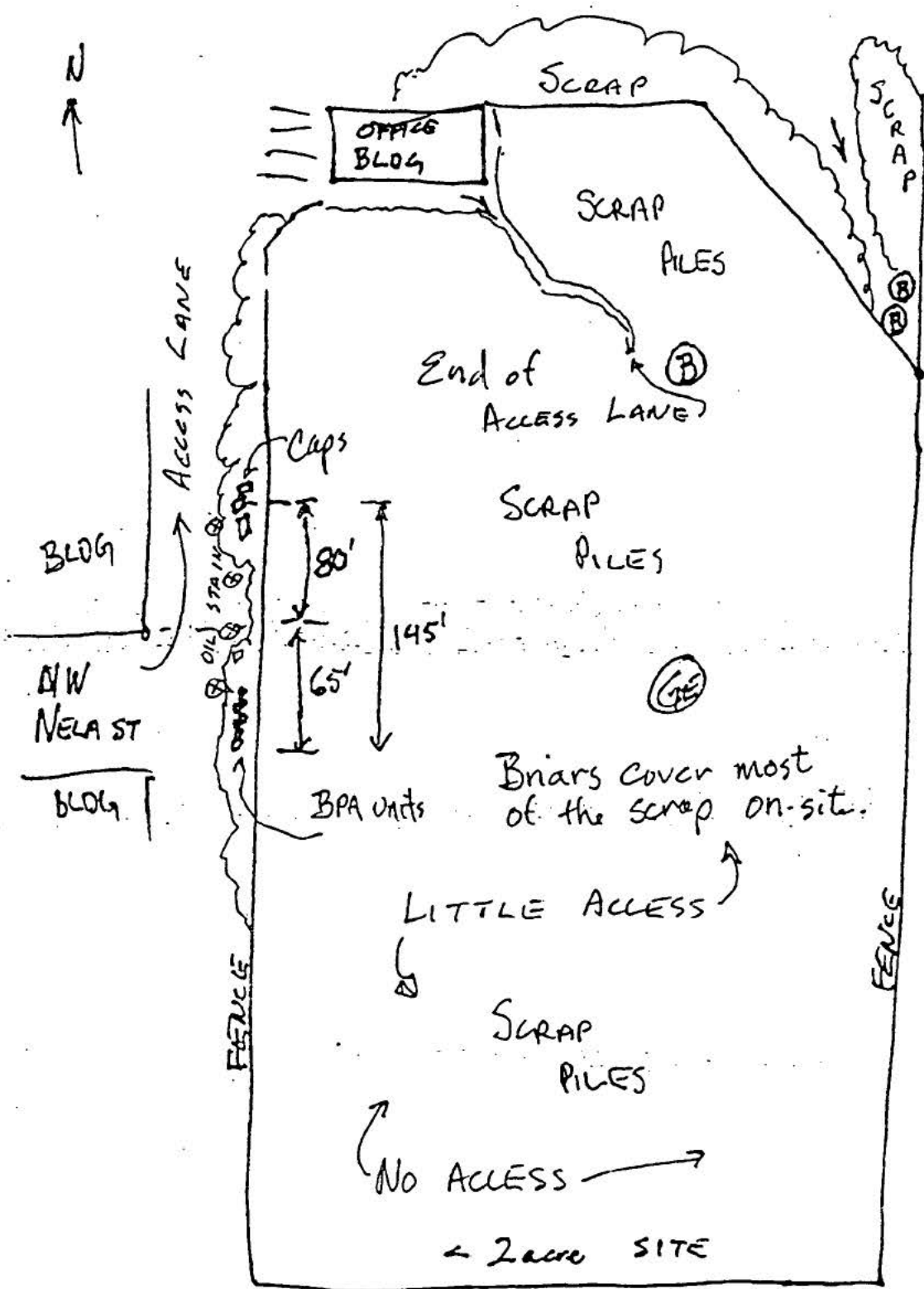




ATTACHMENT 3

# NUDELMAN'S SITE

ATTACHMENT



ⓑ - BPA Bushing Transformer

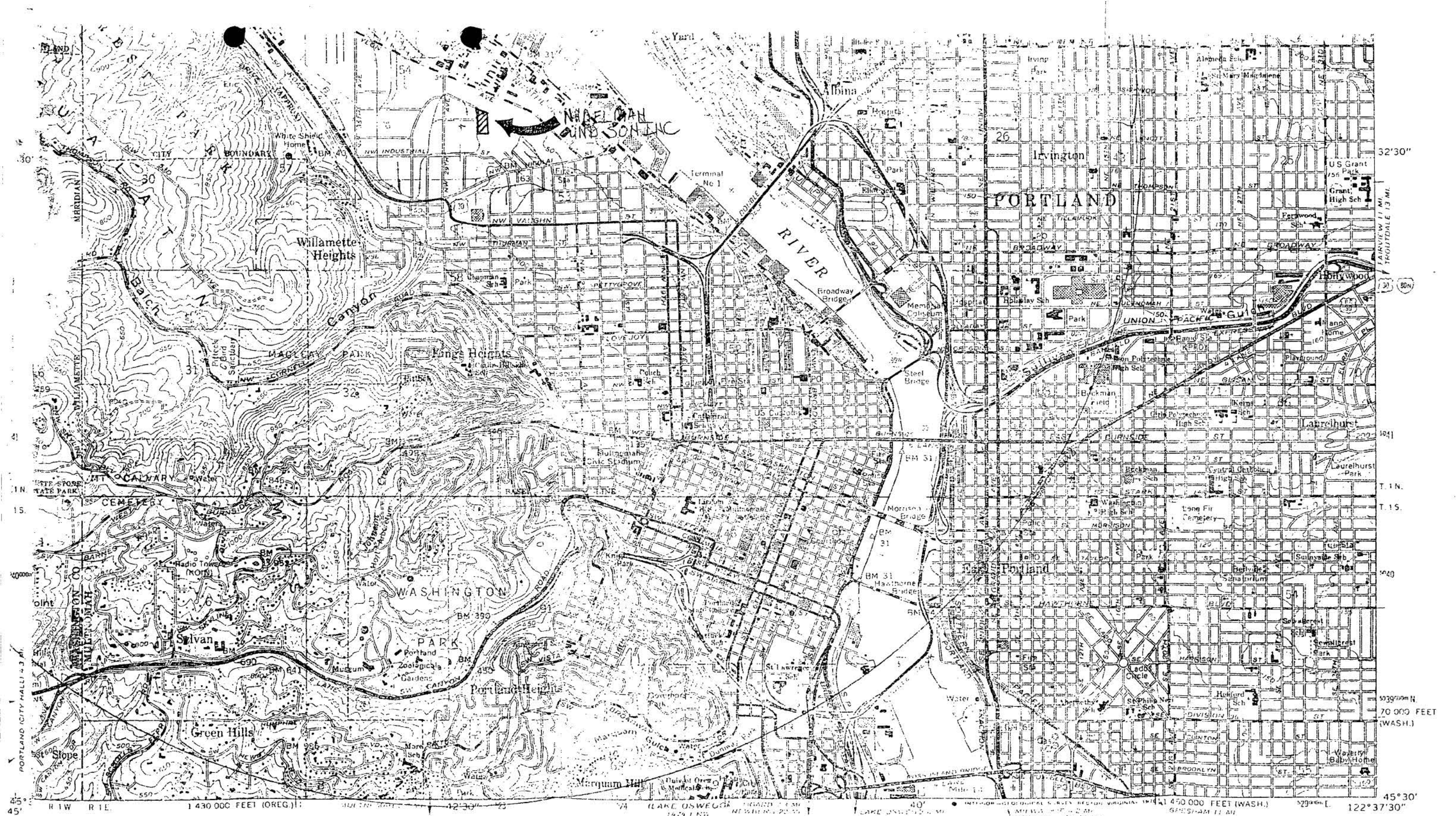
ⓐⓐ GE. Ele. Transformer

□ Capacitor

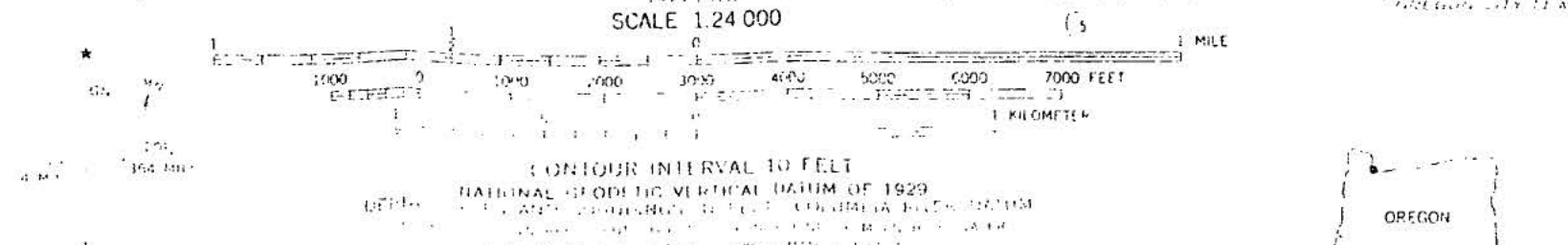
⊕ Soil sample composite

NUDELMAN & Son Inc, 2707 N.W. NELA ST., PORTLAND



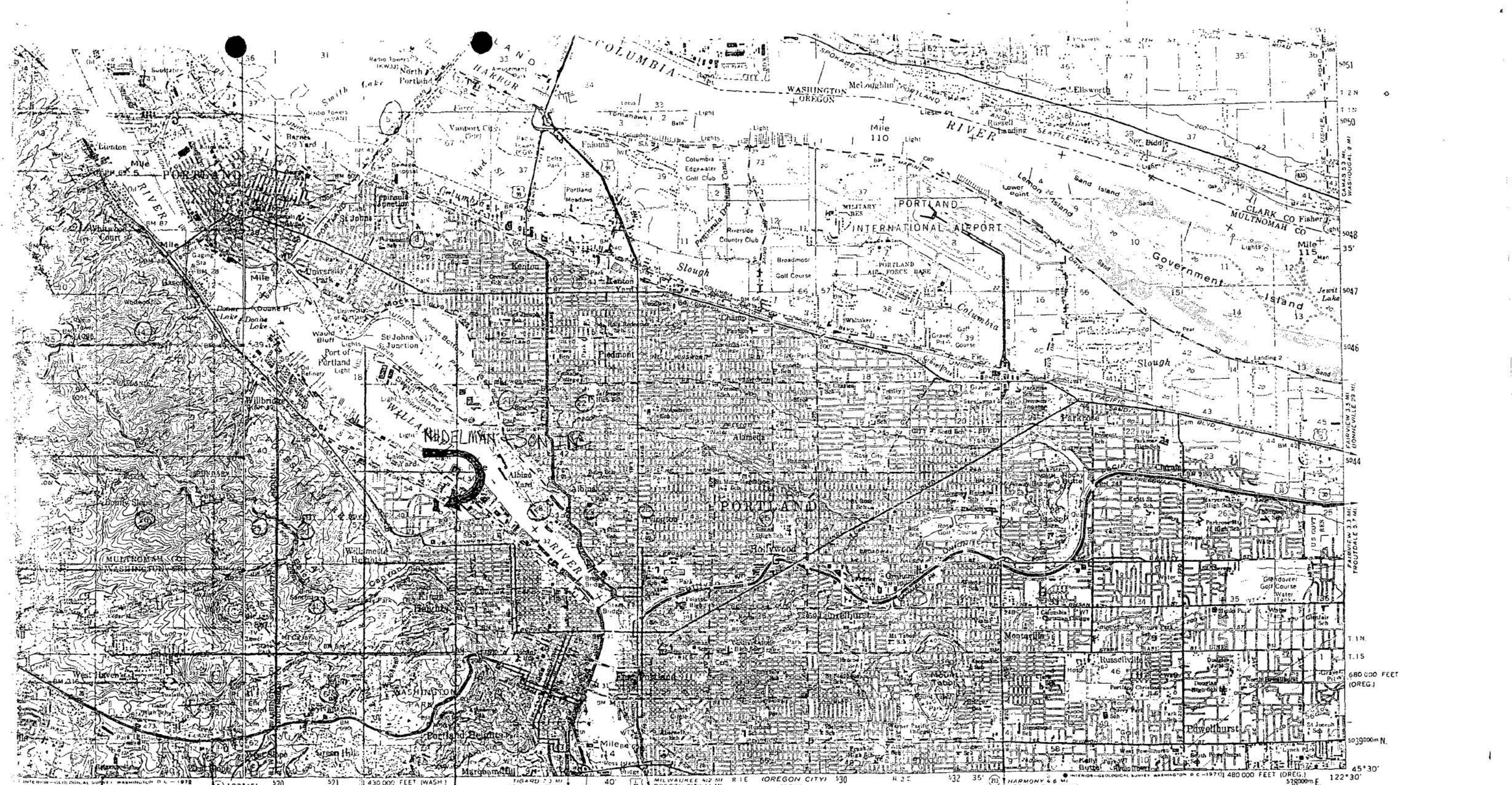


3d, edited, and published by the Geological Survey  
 by USGS, NOS/NOAA, and State of Oregon  
 by from aerial photographs by photogrammetric methods  
 Planetable surveys. Culture and drainage in part by USC&GS  
 photographs taken 1951. Field checked 1954  
 from aerial photographs taken 1960. Field checked 1961  
 hydrographic data compiled from NOS/NOAA Charts 6155 (1960) and  
 (1959). This information is not intended for navigational purposes



ROAD CLASSIFICATION  
 Heavy-duty ——— Light-duty ———  
 Medium-duty - - - - - Unimproved dirt ———  
 Interstate Route U.S. Route State Route  
 PORTLAND, OREG.-WASH.





9  
Heavy-duty  
Medium-duty

ROAD CLASSIFICATION  
Heavy-duty  
Medium-duty  
Unimproved dirt

U.S. Route  
State Route

This area also covered by 7.5 minute, 1:24,000 scale maps: Salem 1961, Union Mountain 1961, Hillsboro 1961, and Linton 1961.

HILLSBORO, OREG. - WASH.  
N4530-W12245/15

1961

AMS 1475 III--SERIES V792

Mapped, edited, and published by the Geological Survey  
Control by USGS, USC&GS, USCE, and State of Oregon  
Compiled in 1962 from 1:24,000 scale maps dated 1961  
Selected hydrographic data compiled from USC&GS Charts 5154 (1959), 6155 (1961), and 6156 (1959)  
This information is not intended for navigational purposes

Polyconic projection. 1927 North American datum  
10,000-foot grids based on Washington coordinate system, south zone, and Oregon coordinate system, north zone  
1:100,000-meter Universal Transverse Mercator grid ticks, one 10, shown in blue

Red tint indicates areas in which only landmark buildings are shown

Scale 1:62,500

CONTOUR INTERVAL 40 FEET  
DOTTED LINES REPRESENT 20-FOOT CONTOURS  
DATUM IS MEAN SEA LEVEL  
DEPTH CURVES AND SOUNDINGS IN FEET—COLUMBIA RIVER DATUM  
SHORELINE UNITS REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
THE MEAN RANGE OF TIDE IS APPROXIMATELY 2 FEET

FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225 OR WASHINGTON, D.C. 20242  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION  
Heavy-duty  
Medium-duty  
Unimproved dirt

Interstate Route  
U.S. Route  
State Route

This area also covered by 7.5 minute, 1:24,000 scale maps: Orchards 1961, Vancouver 1961, Portland 1961, and Mount Tabor 1961.

PORTLAND, WASH.-OREG.  
N4530-W12230/15

1961

AMS 1475 II--SERIES V791

35-36-1  
67

ATTACHMENT 4



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

OREGON OPERATIONS OFFICE  
PORTLAND, OREGON 97204

August 10, 1988

REPLY TO 000  
ATTN OF:

MEMORANDUM

SUBJECT: S.J. Nudelman & Son, Inc.  
TSCA Inspection Report

FROM: Ron Culver, P.E., Oregon Operations Office  
Environmental Engineer

*Ron Culver*

TO: Gil Haselberger, Chief  
Toxic Substances Section - AT-083

THRU: Al Goodman, Chief  
Hazardous Waste Section

The enclosed report is the result of my inspection of Nudelman Scrap Metal on August 4, 1988. Please call me at FTS 423-2676 if you have any questions.

This 2 acre site has been used for scrap and salvage operations by Mr. Nudelman for about 25 years. Nearly all of the site is inaccessible due to huge piles of scrap laced with briars. Mr. Nudelman has no long range or near term plans for the site. During the inspection, one man was using a cutting torch to dismantel electrical panels. This is a typical scrap and salvage site where alot of oil has been spilled on the ground in the past and present. I am recommending the site be placed on the CERCLIS for further evaluation.

#0610F



## TSCA Report

### Facility

Nudelman & Son, Inc.  
2707 N.W. Nela Street  
Portland, Oregon 97210

### Site Address

Same  
Phone: 226-4051

### Inspector

Ron I. Culver, P.E., Environmental Engineer  
EPA, Oregon Operations Office

### Inspection Date and Time

August 4, 1988 starting at 9:10 A.M.

### Background

This facility was part of the scrap and salvage inspection scheme. It was scheduled for inspection in FY 88. Since OOO had received calls from concerned individuals regarding the salvage of transformers and the spilling of oil, this inspection was done by OOO although it was to be done by ATD, the regional office. No prior notice was given to the facility because of the urgent nature of the complaint.

### Introduction and Records Review

I entered the Nudelman office and met Marvin Nudelman, Vice-President and Stanford J. Nudelman, Owner-Manager; the latter is the father of the former. Credentials were shown and Notices of Inspection and Confidentiality were provided and signed by S.J. Nudelman.

The purpose of the inspection was explained and records were requested for the transformers I observed at the entry way to the 2 acre site. No records could be found initially but a file was produced later that was full of invoices, general descriptions and tonnage data. No PCB test results could be found. No copy machine was available so I recorded the following on the BPA/GSA shipments, Sale and Contract:

Sale 10FB-P-84-04TC

Award 284443

Contract GS-10S-410262

Letter November 9, 1984 from BPA; Payment past due for Transformers, Breakers and Capacitors. Only a few Bill No's were copied:

Bill # 105025

Bill # 1015184

Bill # G-074096; 11,310 lbs weight

Bill # G-105022; 10/4/84; 2,894 lbs weight

Estimated total weight approximately over 100,000 lbs. No record of any PCB test was found.

### Site Tour

The two acre or less site was totally covered with scrap. Most of the front 1/2 of the site was covered up to 8 ft. deep with scrap mixed with Pacific Northwest Bell telephone equipment. Large panels containing hundreds of small enclosed units that look like capacitors were seen. Blackberries have nearly taken over the entire site. The back 1/2 of the site holds much older scrap. Some piles have decayed into heaps of rust. More electrical equipment was seen, but little oil filled units other than small electrical panels.

BPA was the source of the large "CAPACITOR-POTENTIAL-TRANSFORMER" units, ie, BUSHINGS.

See pictures 7, 9, 11, 12

The first name plate I saw (see picture 7):

Messwandler - Bau GMBH - Bamberg

SN 71/399944, American Elin Corp

American Broadway, New York

Bushing Manufacturer: STEMAL; 1971

There was no mention of the word oil on the name plate. These units were liquid filled until salvaged. Large stains were seen on the ground where the units had been broken open or dismantled. Parts of these "Bushing-Transformers" were found all over the site. There may have been over 50 of them originally. All observed appeared nearly identical. One nameplate showed the Bushing Manufacturer: "SEMENS" with SN 71/411590. It was marked sampled 1-9-84, apparently by BPA. Oil had run onto the ground from this unit. Picture 9 in the corner, next to a bottom tank from another unit. All these units were purchased thru GSA or BPA for salvage in 1984. Some were still in crates where they were 4 years ago - untouched. Some other serial numbers were:

72/451156

72/451158

72/451157

A different type GE transformer was found about in the middle of the site. The word oil was not on the label which stated: "High Voltage Testing Set" SN 6408310 Typek, 50,000v 115/230". The size was about 35 gallons. See picture 8. Oil stains show on the outside of this unit.

### Sampling

I collected 3 samples to determine if contaminated PCB oil is being spilled on the ground. Sample-1: 88320075 was heavily stained ground samples from 4 locations along entry. See sketch. This is where many bushings from BPA had been demolished and a lot of oil spilled. Sample-2: 88320076 was a wipe sample where a capacitor was leaking at the bushing; see picture 13. Sample-3: 88320077 was oil absorbed from a small capacitor that was broken and had spilled out; see picture 14. The second and third samples may not be from BPA equipment because no nameplate was visible. Test results will be forwarded when received from DEQ. Also, BPA is looking for any test results they can find on this shipment.



Exit Meeting

Stanford Nudelman was advised that EPA would be sending him a letter when we get test results. He maintains that he never had any PCB contaminated equipment, especially from BPA; they would never have sold him any PCB contaminated scrap. See phone memo of my discussion with Mr. Nudelman on August 9, 1988; Attachment 10.

Enclosures:

1. TSCA - Notice of Inspection
2. TSCA - Inspection Confidentiality Notice
3. PCB Inspection Plan
4. Field Sample Data Sheet
5. Receipt for samples and documents
6. Chain of Custody Record
7. Site Sketch
8. Pictures List
9. Pictures
10. Phone Memo
11. Location Map

#0611F



US ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

TOXIC SUBSTANCES CONTROL ACT

NOTICE OF INSPECTION

Form Approved  
OMB No. 2070-0007  
Expires 3-31-88

ATTACHMENT 1

1. INVESTIGATION IDENTIFICATION			2. TIME	3. FIRM NAME
DATE 8/4/88	INSPECTOR NO. 1450	DAILY SEQ. NO.	9:10 am	Nudelman & Son Inc / ABC & J. Recycling
4. INSPECTOR ADDRESS 811 SW 6th Ave. Portland			5. FIRM ADDRESS 2707 N.W. NEZA ST. Portland, Oreg. 97210	

REASON FOR INSPECTION

Under the authority of Section 11 of the Toxic Substances Control Act:

- ☒ For the purpose of inspecting (including taking samples, photographs, statements, and other inspection activities) an establishment, facility, or other premises in which chemical substances or mixtures or articles containing same are manufactured, processed or stored, or held before or after their distribution in commerce (including records, files, papers, processes, controls, and facilities) and any conveyance being used to transport chemical substances, mixtures, or articles containing same in connection with their distribution in commerce (including records, files, papers, processes, controls, and facilities) bearing on whether the requirements of the Act applicable to the chemical substances, mixtures, or articles within or associated with such premises or conveyance have been complied with.

☐ In addition, this inspection extends to (Check appropriate blocks):

☐ A. Financial data

☐ D. Personnel data

☐ B. Sales data

☐ E. Research data

☐ C. Pricing data

The nature and extent of inspection of such data specified in A through E above is as follows:

INSPECTOR SIGNATURE 		RECIPIENT SIGNATURE 	
NAME RON CULVER		NAME STANFERD J. NUDELMAN	
TITLE Env. Engr.	DATE SIGNED 8/4/88	TITLE MGR. Owner	DATE SIGNED 8-4-88



US ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

TOXIC SUBSTANCES CONTROL ACT

TSCA INSPECTION CONFIDENTIALITY NOTICE

Form Approved  
OMB No. 2070-0007  
Expires 3-31-88

ATTACHMENT 2

1. INVESTIGATION IDENTIFICATION			2. FIRM NAME	
DATE 8/4/88	INSPECTOR NO. 1450	DAILY SEQ. NO.	Nudeliman & Son Inc	
3. INSPECTOR NAME Ron Culver			4. FIRM ADDRESS 2707 NW Nela St Portland, Oreg. 97210	
5. INSPECTOR ADDRESS 811 SW 6th Ave Portland Ore 97204			6. CHIEF EXECUTIVE OFFICER NAME STANFORD J. NUDELMAN	
			7. TITLE OWNER-MGR	

TO ASSERT A CONFIDENTIAL BUSINESS INFORMATION CLAIM

It is possible that EPA will receive public requests for release of the information obtained during inspection of the facility above. Such requests will be handled by EPA in accordance with provisions of the Freedom of Information Act (FOIA), 5 USC 552; EPA regulations issued thereunder, 40 CFR Part 2; and the Toxic Substances Control Act (TSCA), Section 14. EPA is required to make inspection data available in response to FOIA requests unless the Administrator of the Agency determines that the data contain information entitled to confidential treatment or may be withheld from release under other exceptions of FOIA.

Any or all the information collected by EPA during the inspection may be claimed confidential if it relates to trade secrets or commercial or financial matters that you consider to be confidential business information. If you assert a CBI claim, EPA will disclose the information only to the extent, and by means of the procedures set forth in the regulations (cited above) governing EPA's treatment of confidential business information. Among other things, the regulations require that EPA notify you in advance of publicly disclosing any information you have claimed as confidential business information.

A confidential business information (CBI) claim may be asserted at any time. You may assert a CBI claim prior to, during, or after the information is collected. The declaration form was developed by the Agency to assist you in asserting a CBI claim. If it is more convenient for you to assert a CBI claim on your own stationery or by marking the individual documents or samples "TSCA confidential business information," it is not necessary for you to use this form. The inspector will be glad to answer any questions you may have regarding the Agency's CBI procedures.

While you may claim any collected information or sample as confidential business information, such claims are unlikely to be upheld if they are challenged unless the information meets the following criteria:

1. Your company has taken measures to protect the confidentiality of the information, and it intends to continue to take such measures.

2. The information is not, and has not been, reasonably obtainable without your company's consent by other persons (other than governmental bodies) by use of legitimate means (other than discovery based on showing of special need in a judicial or quasi-judicial proceeding).
3. The information is not publicly available elsewhere.
4. Disclosure of the information would cause substantial harm to your company's competitive position.

At the completion of the inspection, you will be given a receipt for all documents, samples, and other materials collected. At that time, you may make claims that some or all of the information is confidential business information.

If you are not authorized by your company to assert a CBI claim, this notice will be sent by certified mail, along with the receipt for documents, samples, and other materials to the Chief Executive Officer of your firm within 2 days of this date. The Chief Executive Officer must return a statement specifying any information which should receive confidential treatment.

The statement from the Chief Executive Officer should be addressed to:

and mailed by registered, return-receipt requested mail within 7 calendar days of receipt of this Notice. Claims may be made any time after the inspection, but inspection data will not be entered into the special security system for TSCA confidential business information until an official confidentiality claim is made. The data will be handled under the agency's routine security system unless and until a claim is made.

TO BE COMPLETED BY FACILITY OFFICIAL RECEIVING THIS NOTICE:

I have received and read the notice

SIGNATURE x <i>Stanford J. Nudeliman</i>	
NAME STANFORD J. NUDELMAN	
TITLE Owner-Mgr	DATE SIGNED 8/4/88

If there is no one on the premises of the facility who is authorized to make business confidentiality claims for the firm, a copy of this Notice and other inspection materials will be sent to the company's chief executive officer. If there is another company official who should also receive this information, please designate below.	
NAME	
TITLE	
ADDRESS	

# PCB INSPECTION PLAN

Serial  
8/4/8

ATTACHMENT 3

(Must be Completed and Filed with RSCC and RQAMO for all PCB Inspections)

Status: Enforcement Sensitive ☒; CBI ☐; Open ☒; Routine ☒

Site Identifier:

Nuckelman & Son Scrap & Salvage

Authorized Inspector: Ron Culver

Designated Manager: Ron Culver

Inspection Team or Delegated Authorities: Ron Culver

RQAMO Concurrence: \_\_\_\_\_ Date: \_\_\_\_\_

ESD Peer Review: \_\_\_\_\_ Date: \_\_\_\_\_

Project Number: E00-054A Account Number: AFL-3A

Laboratory Designated: EPA ☐; CLP ☐; Private ☒ DEQ ☒

Sample Numbers Assigned: 88320075 to 0079 \*

## Sample Schedule and Milestones:

(This schedule must be filled out ACCURATELY and COMPLETELY)

DATE	8-4-8	8-4-8	8-22-8
ACTIVITY	SAMPLE:	TO LAB	LAB REPORT
MATRIX	1 - SOIL 2 - OIL Wipe 1 - BLANK	(DEQ)	Test result
# OF SAMPLES			

Regional Sample Control Center Review: \_\_\_\_\_

Acceptance Date: \_\_\_\_\_ "open" section(s) closed on \_\_\_\_\_

Project Description and Site Location: 2 acre Scrap pile  
2707 Neta St, Portland Oregon 97210

Sample Rational and Network Derivation: Emergency Response  
Spill / Salvage Oil in Transformers

Cooperating Agencies, Involved Parties: DEQ Relayed TSCA VIO report

Special Considerations or "open" requirements: \_\_\_\_\_

(Continue on back if necessary)

\* Numbers borrowed from Joes Recycling that was missed 8/3

## ND CHAIN OF CUSTODY SHEET

Miscellaneous: Test for PCB Sampling Crew: Ron Culver

STATUS Estuar Soil PCB low to med  
Wipe samples med to hi? Recorder: Ran Carlson  
(Signatures Required)

[illegible]

SITE ONLY			CONDITION OF SAMPLES UPON RECEIPT AT LAB:		
E			CUSTODY SEALS INTACT: <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> none		
ne			CHAIN OF CUSTODY RECORD		
Type	Freq		RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
			RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
			RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
			RELINQUISHED BY: (Signature)	RECEIVED BY MOBILE LAB FOR FIELD ANALYSIS: (Signature)	DATE/TIME
			DISPATCHED BY: (Signature)	DATE/TIME	RECEIVED FOR LAB BY: (Signature)
			Don Collins	8/4/88	Paul M. [Signature]
			METHOD OF SHIPMENT		
					8/4/88 2:20

**Yellow**

Field or Office Copy *Pink*





U.S. ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

TOXIC SUBSTANCES CONTROL ACT

RECEIPT FOR SAMPLES AND DOCUMENTS

Form Approved  
OMB No. 2070-0007  
Approval expires 8-31-88

ATTACHMENT 5

1. INVESTIGATION IDENTIFICATION			2. FIRM NAME
DATE 8/4/88	INSPECTOR NO. 1450	DAILY SEQ. NO.	Nudelman & Son
3. INSPECTOR ADDRESS			4. FIRM ADDRESS
811 SW 6th Av Portland, Ore. 97204			2707 NW Nela St Portland Ore 97210

The documents and samples of chemical substances and/or mixtures described below were collected in connection with the administration and enforcement of the Toxic Substances Control Act.

RECEIPT OF THE DOCUMENT(S) AND/OR SAMPLE(S) DESCRIBED IS HEREBY ACKNOWLEDGED:

NO.	DESCRIPTION
S-1	Soil / Sand w oil by BPA Bushings 10:30a
S-2	Wipe Sample Cap / Bushing 10:45a
S-3	Wipe Sample Sur. Cap 11:00a
-	Pictures of Yard / Etc Equipment

OPTIONAL:

DUPLICATE OR SPLIT SAMPLES: REQUESTED AND PROVIDED ☐ NOT REQUESTED ☒

INSPECTOR SIGNATURE <i>Ron Culver</i>		RECIPIENT SIGNATURE <i>Stanford J. Nudelman</i>	
NAME Ron Culver		NAME STANFORD NUDELMAN Owner - Mgr.	
TITLE Env. Engr.	DATE SIGNED 8-4-88	TITLE <i>Env. Engr.</i>	DATE SIGNED 8-4-88

# DEPARTMENT OF ENVIRONMENTAL QUALITY

Laboratories and Applied Research Division  
1712 S.W. 11th Avenue, Portland, OR 97201

ATTACHMENT 6

## LEGAL SAMPLE

### Chain of Custody Record

Site Name: S. J. NUDELMAN + SON, INC. Laboratory Number: 880657  
Location: PORTLAND Program Code: 45551  
Date Sampled: 8/4/88 Date Received: 8/4/88  
Time Sampled: 10:30 - 11:45 AM Time Received: 2:20 PM  
Collected By: R. N. CULVER

### Sample Container Information

Container Type/Number	Container Type/Number	Container Type/Number
802 VOA BOTTLE / S-1	/	/
40ml PURGE VIAL / S-2	/	/
40ml PURGE VIAL / S-3	/	/
40ml PURGE VIAL / S-4	/	/
/	/	/
/	/	/

Total Number of Containers Received: 4

Relinquished By: Ron Culver  
(signature)

Received By: Bob Wiley  
(signature)

Initial Placement in Refrigerator # 4610

Subsequent Out of Laboratory Transfers:

Relinquished By: \_\_\_\_\_  
(time/date)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Received By: \_\_\_\_\_  
(time/date)

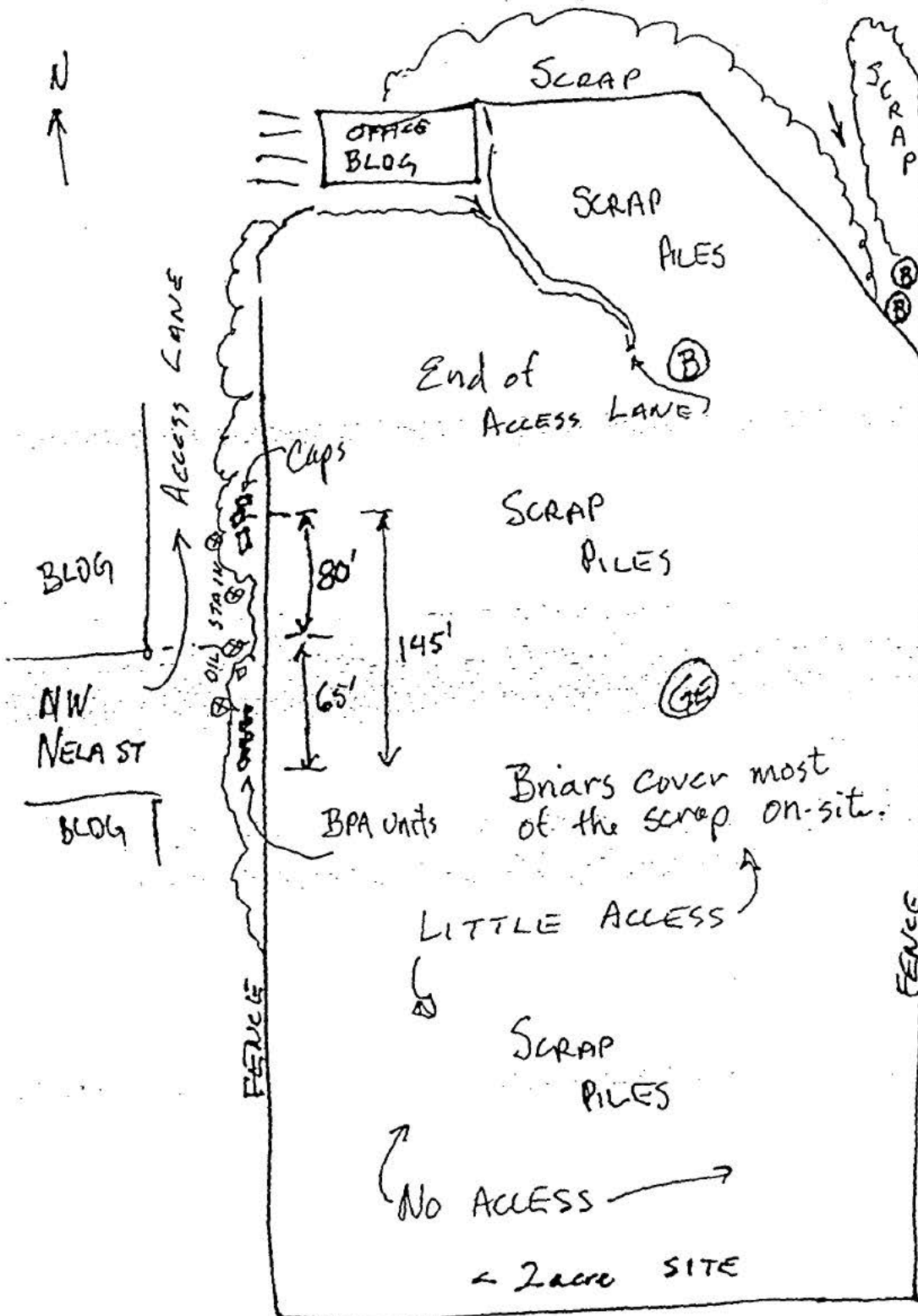
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# NUDELMAN'S SITE

ATTACHMENT 7



ⓑ - BPA Bushing Transformer

ⓖⓔ GE Ele. Transformer

□ Capacitor

Ⓢ Soil sample compos

NUDELMAN & Son Inc, 2707 N.W. NELA St., PORTLAND



## PICTURES

## ATTACHMENT 8

1 & 2 - A panorama looking toward South. A railroad mounted crane is covered by briars in background. Buildings are off site.

3 & 4 - Looking West. Small incinerator visible at left in picture 4. Office is mostly covered by tree in center of 4. Building at left in 4 was not inspected.

5 & 6 - Looking North. Bottom tank from bushing transformer in center of 5. Drums in 6 with unknown content.

7 - Bottom part of bushing transformer; core still inside. Most of the oil was gone.

8 - GE transformer, "High Voltage Testing Set".

9 - Bushing transformers. Rainwater and oil in open pot on left. Unit on right was leaking oil onto the ground as a result of a bushing break.

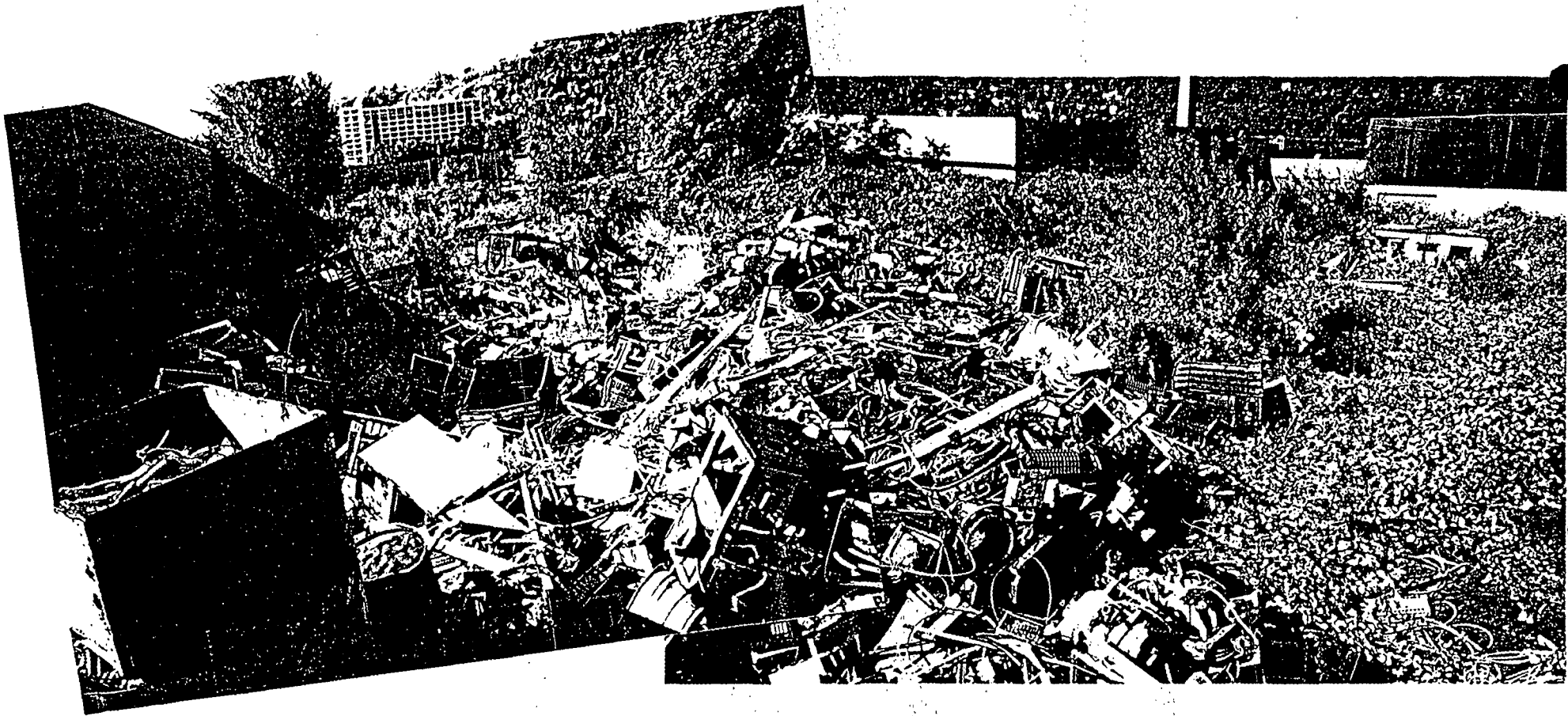
10 - Salvage of electrical panels by man with torch.

11 - Several pieces of bushing transformers with a lot of recently spilled oil on the ground. Part of sample 1 collected here. Location: near entry at end of Nela Street.

12 - Entry at end of Nela Street. Bushing transformer units may be leaking; too much brush to tell.

13 - Leaking capacitors. No labels visible; sample 2 collected from leak on this unit.

14 - Larger caps at top. Smaller broken cap lower right - still 1/2 full of oil. The small ones may be out of the bushings. They appeared to be from a larger unit. Several were laying around. Sample 3 collected from the small open cap.

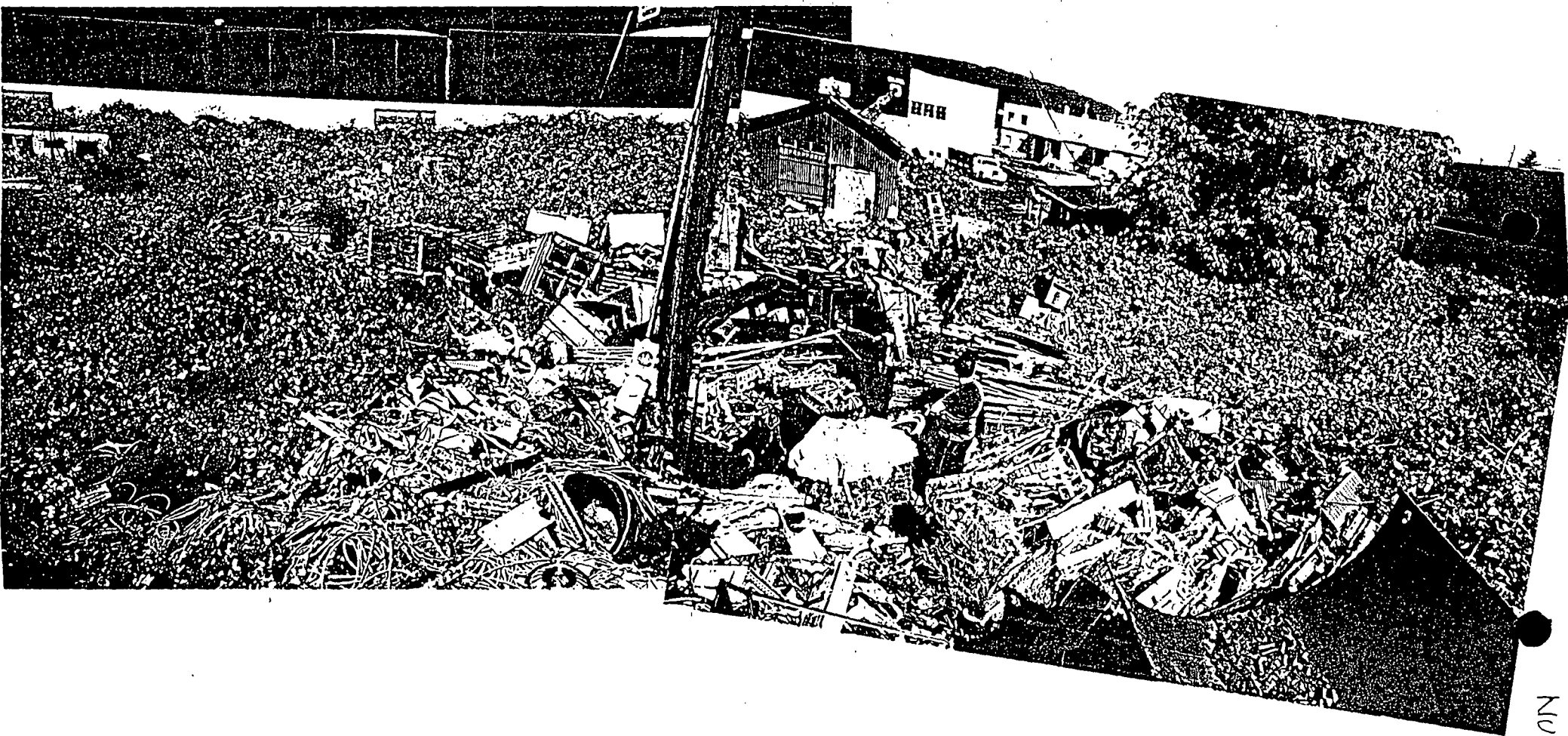


NUDELM  
8-4-88

ATTACHMENT  
9

1

2

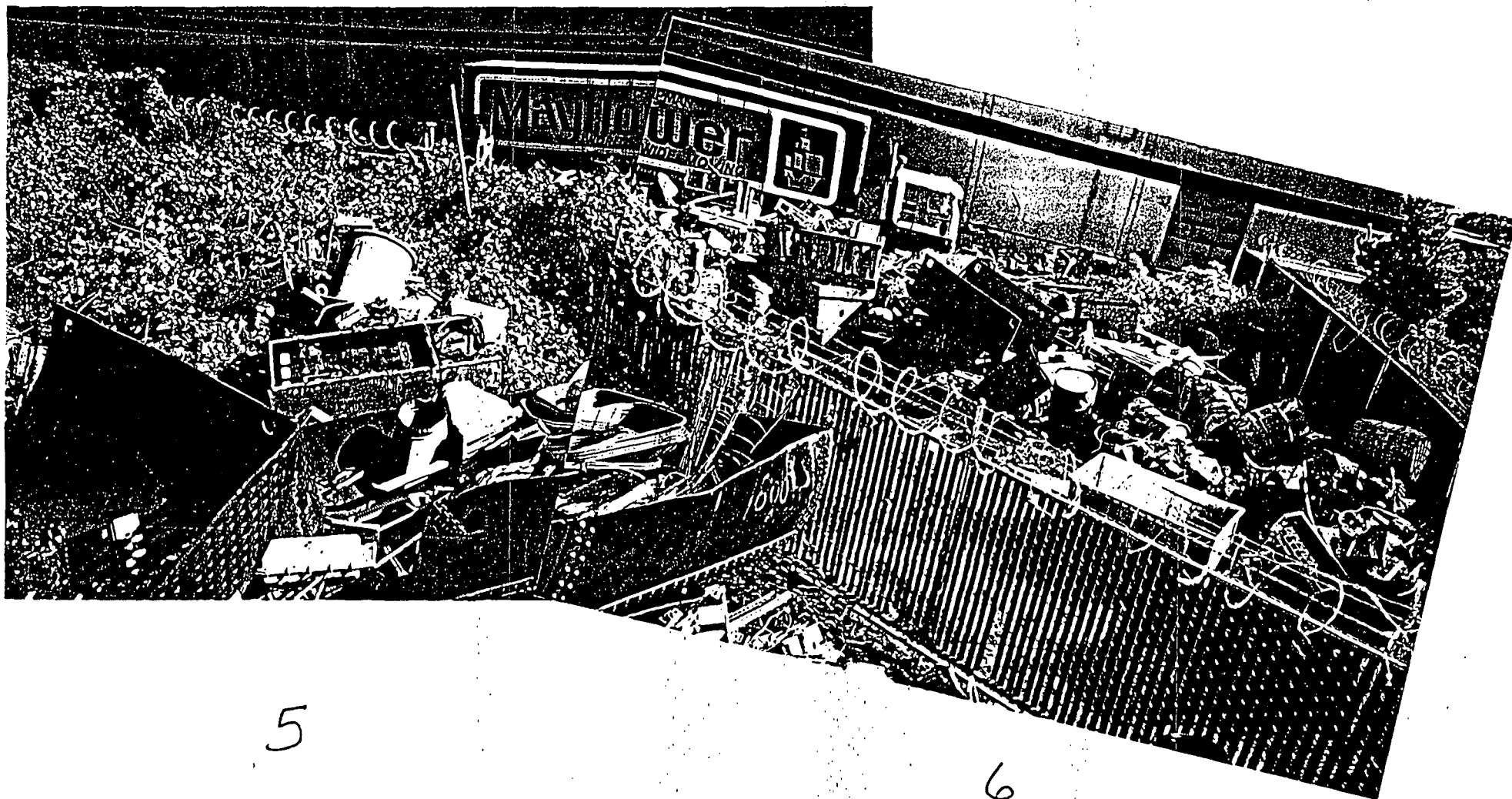


3

4

NUONELMAN  
8-4-88

2/6



5

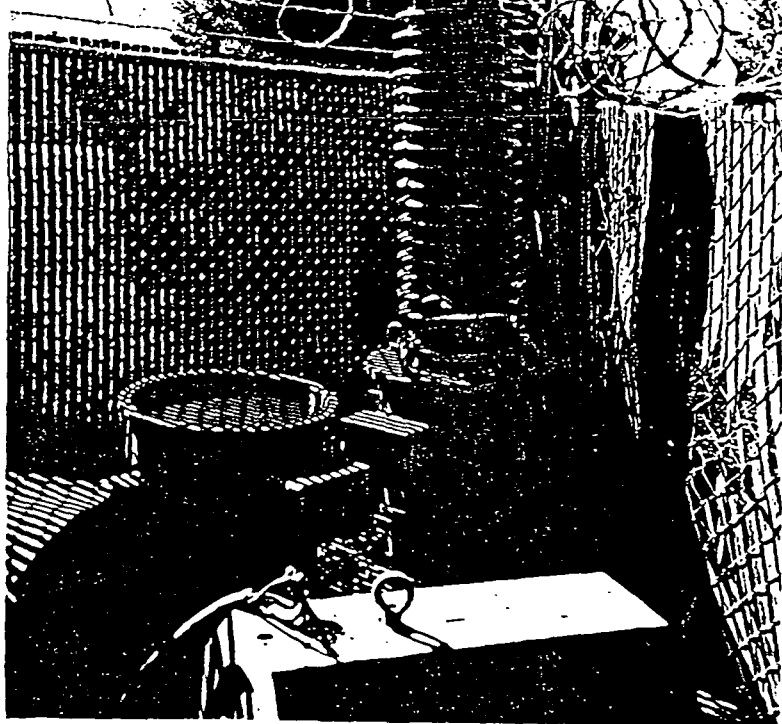
6



7 ↑



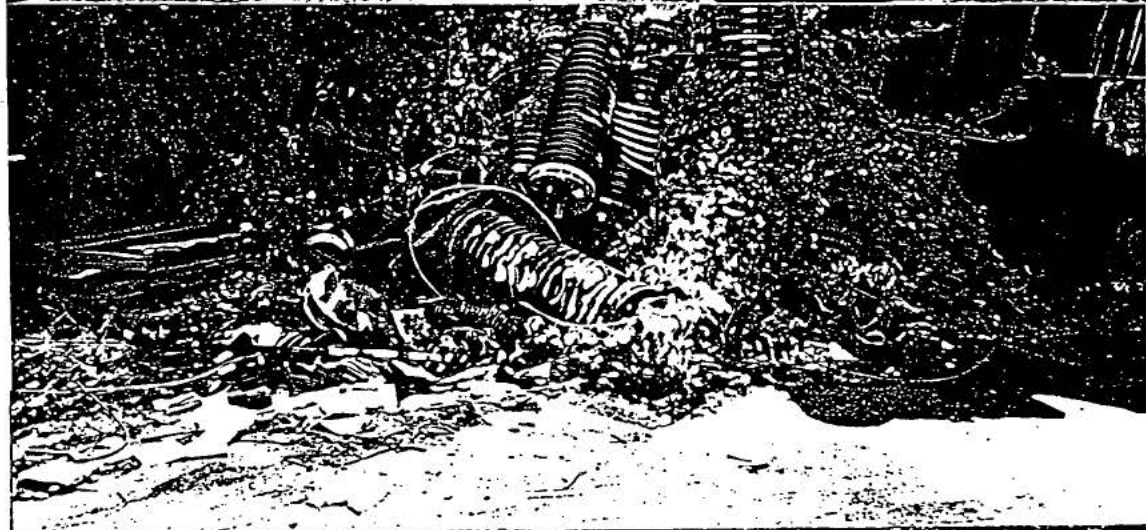
8 1



9



10



11



12





13



14





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

OREGON OPERATIONS OFFICE  
PORTLAND, OREGON 97204

August 9, 1988

ATTACHMENT 10

REPLY TO 000  
ATTN OF:

MEMORANDUM

SUBJECT: S.J. Nudelman & Son, Inc.  
Telephone Conference on 8-9-88

FROM: Ron Culver, P.E.  
Oregon Operations Office *RW*

TO: File

I asked Mr. Stanford Nudelman the following questions; August 9, 1988 at 9:00 A.M.

1. What did he do with oil from bushings? Reply: He used it for his trucks hydraulic systems. He has no bulk oil storage.

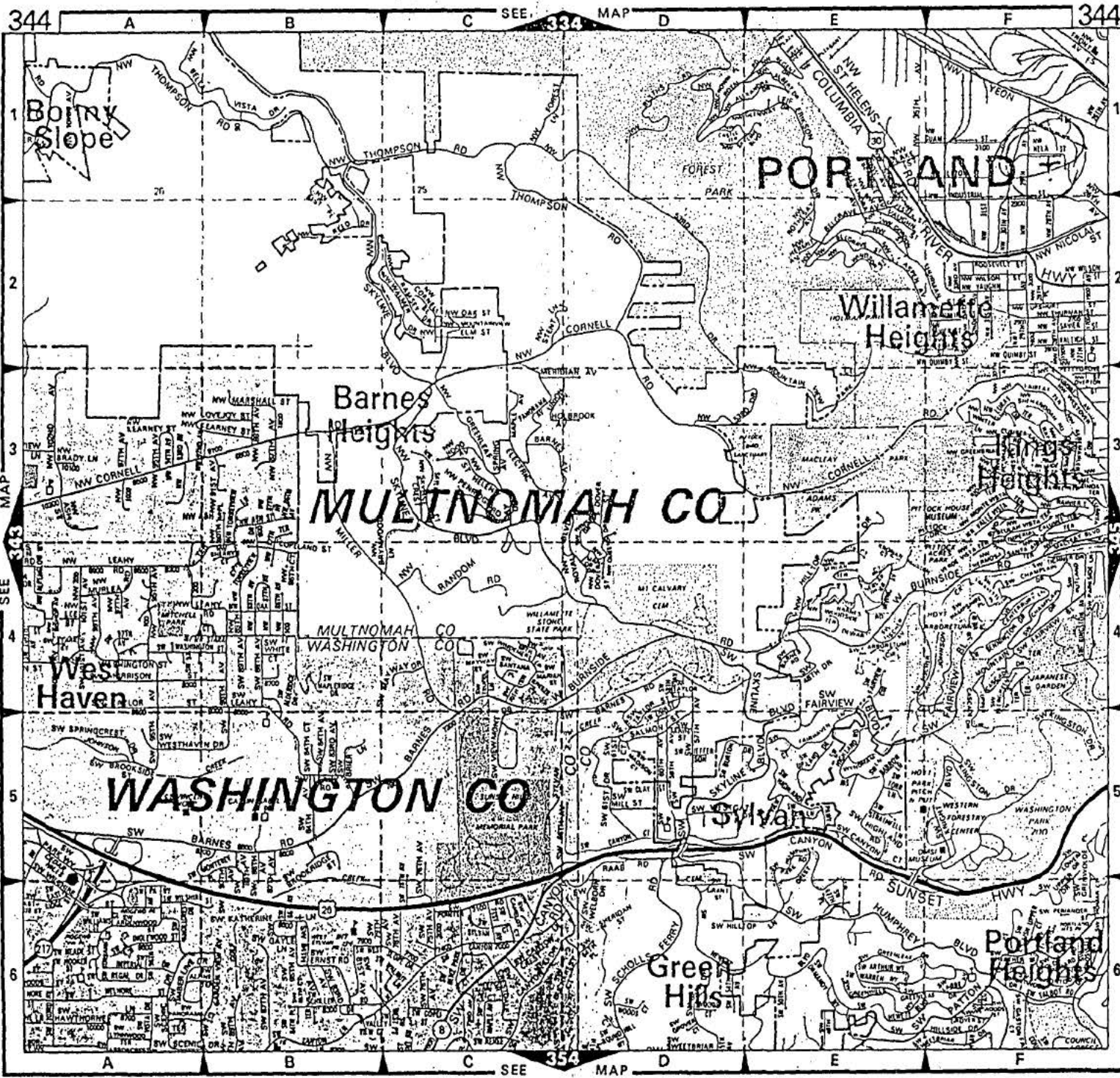
2. I asked if he owns any other sites. Reply: No.

3. I asked about any past burning on site. He said never did he burn on site.

4. I asked about sewers on site. He said there are none. They have a septic tank and no storm or sanitary sewers.

5. I asked if he has any long-term plans for the site. He said no. There are no plans to liquidate or remove scrap on site.

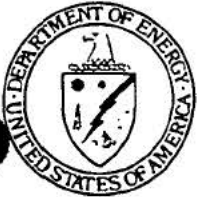
#0609F



COPYRIGHT, © 1984 BY Thomas Bros Maps

ATTACHMENT 11

ATTACHMENT 5



Department of Energy  
Bonneville Power Administration  
P.O. Box 3621  
Portland, Oregon 97208 - 3621

AUG 12 1988

AT-083  
Haselberger  
Please attach to  
Report for Same  
Scrap dealer Ron

In reply refer to: AJ

Mr. Ron Culver  
Oregon Operations Office  
US Environmental Protection Agency  
811 SW Sixth Avenue  
Portland, Oregon 97204

Dear Mr. Culver:

On August 8, 1988, Bonneville Power Administration (Bonneville) was contacted by the US Environmental Protection Agency (EPA) regarding electrical equipment observed by EPA at S. J. Nudelman, NW Nela Street in Portland, Oregon. Some of the equipment was said to have markings on it indicating that it may have been owned at one time by Bonneville. Bonneville was asked to search its records and provide any available information on the polychlorinated biphenyl (PCB) contamination level of the equipment.

Although serial numbers on various pieces of equipment were provided, the Bonneville identification number was not. Bonneville's PCB testing records relate to the equipment number assigned when the equipment is received and this number is necessary in order to most accurately retrieve the information EPA has requested.

Enclosed is laboratory data on those pieces of equipment which we have been able to track to the sale to Nudelman based on those Bonneville numbers that we have obtained to date. As you will note, the results did not show contamination by PCB's to the 1 part per million level of detection. Bonneville will search for additional information if the Bonneville equipment numbers can be obtained. We would be glad to meet with you to further discuss this matter.

Please call me at 230-5139 or FTS 429-5139 if you have any questions.

Sincerely,

*Nicholas J. Stas*

Nicholas J. Stas  
Senior Environmental Specialist

2 Enclosures  
Laboratory Data

RECEIVED

\_\_\_\_\_, Superintendent  
Substation Maintenance, \_\_\_\_\_

LR- 42873

D. W. Baker, Chief  
Chemical Section - ERGA

The following are the results of PCB analysis on samples submitted to the Ross  
Complex Chemical Laboratory:

LOCATION	DATE SAMPLE	EQUIPMENT #	AROCHLOR ID	CONCENTRATION (PPM)
<u>Road U&amp;D</u>	<u>4/25</u>	<u>P-3993 lower ✓</u>	<u>?</u>	<u>&lt;1 ✓</u>
		<u>" base ✓</u>		<u>&lt;1 ✓</u>
		<u>P-3994 lower ✓</u>		<u>&lt;1 ✓</u>
		<u>" base ✓</u>		<u>&lt;1 ✓</u>
		<u>P-3995 lower ✓</u>		<u>&lt;1 ✓</u>
		<u>" base ✓</u>		<u>&lt;1 ✓</u>
		<u>P-3996 lower ✓</u>		<u>&lt;1 ✓</u>
		<u>" base ✓</u>		<u>&lt;1 ✓</u>
		<u>P-3997 lower ✓</u>		<u>&lt;1 ✓</u>
		<u>" base ✓</u>		<u>&lt;1 ✓</u>
		<u>P-3998 lower ✓</u>		<u>&lt;1 ✓</u>
		<u>" base ✓</u>		<u>&lt;1 ✓</u>

Sampled by: Lollman  
Tested by: Plath/ERGA

D. W. Baker  
D. W. Baker, Chief  
Chemical Section

cc:

D. Johnson - OHS  
T. Horiyasu - OHS  
W. Connely - ERJP  
T. Kalara - SI  
G. Davis - EJFB  
Official File - ERG  
WP-ERGA-0309B  
H. NISHINA - ENSA  
J. Boag- OPSQ

5-3-84

\_\_\_\_\_, Superintendent  
Substation Maintenance, \_\_\_\_\_

LR- 42873

D. W. Baker, Chief  
Chemical Section - ERGA

The following are the results of PCB analysis on samples submitted to the Ross Complex Chemical Laboratory:

LOCATION	DATE SAMPLE	EQUIPMENT #	AROCHLOR ID	CONCENTRATION (PPM)
<u>Ross U&amp;D</u>	<u>1/3</u>	<u>P-3931</u>	<u>Lower</u> X ?	<u>&lt;1</u>
			<u>middle</u> X	
			<u>upper</u> X	
			<u>base</u> X	
	<u>1/4</u>	<u>P-3994</u>	<u>base</u> X ?	<u>&lt;1</u>
			<u>A</u> X	
			<u>B</u> X	
			<u>C</u> X	
		<u>P-3313</u>	<u>Base</u> X	
			<u>A</u> X	
			<u>B</u> X	
			<u>C</u> X	

Sampled by: Lallman  
Tested by: Platch/ERGA

D. W. Baker  
D. W. Baker, Chief  
Chemical Section

cc:

D. Johnson - OHS  
T. Moriyasu - OHS  
W. Connely - ERJP  
T. Kafara - SI  
G. Davis - EJFB  
Official File - ERG  
WP-ERCA-0309B  
H. MISHIMA - ENSA  
J. Boag - OPSQ



DEPARTMENT OF ENVIRONMENTAL QUALITY  
Request for Analysis

**LEGAL**

Case No. 480657

Location/Site: S.J. NUDELMAN + SON INC. Date Sampled: 8/4/88

Date Received in Lab: 8/4/88

Collected by: RON CULVER Fund Code: 45551

Date Reported: AUG 29 1988

Purpose: PCB COMPLIANCE TESTING

Report Data to: EPA 900.

Comments: S-1 Please mix well before analysis/extraction (can in results) 221-2676  
Save 1/2 of Sample 811 S.W. 6TH PORT, OR. 221-2676

Item #	Sampling Point Description (include time)	Sample container according to test(s) requested				Test(s) Required
		Nutrients Basic	DO BOD	Metals Organic	Misc. Misc.	
1	SOIL w/oil FROM RPA BUSHINGS 10:30			S-1		PCB
2	WIPE OF CAP/BUSHING LEAK 10:45			S-2		
3	WIPE OF SM. CAP LEAK. 11:00			S-3		
4	BLANK 11:45			S-4		
5						RECEIVED 1 1988 OREGON OPERATIONS OFFICE EPA-REGION 10
6						

Laboratory Comments: \_\_\_\_\_

SEPA

EPA Region 10  
1200 Sixth Avenue  
Seattle WA 98101

## FIELD SAMPLE DATA AND CHAIN OF CUSTODY SHEET

Case No.: SJ. NUDELMAN & SON, Inc Enforcement/Custody ☒ Data Confidential  
 Project Code: \_\_\_\_\_ Account: \_\_\_\_\_ Miscellaneous: Test for PCB Sampling Crew: Ron Culver  
 Name/Location: NUDELMAN SCRAP & SALVAGE Possible Toxic/Hazardous: Tested Soil PCB low to med  
 Proj. Off.: Ron Culver Tel. # 206-2676 ☐ Data for Storet Wipe samples med to hi? Recorder: Ron Culver  
 (Signatures Required)

SOURCE CODE	MATRIX		# CONTAINERS								LAB NUMBER			STORET STATION NUMBER	SAMPLING DATE & TIME				TRAFFIC REPORT NUMBERS		SAMPLER'S INITIALS	STATION DESCRIPTION	
	Oil	Water	Sediment	Tissue	Plastic/VM	Qt. Cubit	Gal. Cubit	16 oz.	8 oz.	120 ml.	40 ml.	Other	Yr		Wk	Seq	Yr	Mo	Dy	Time			Org.
			X							X			88	32	0075	88	08	04	1030			RJC	S-1 Soil @ Dil from BPA Bushings
															76							S-2 Wipe of Cap/Bushing leak	
															77							S-3 Wipe of Sm. Cap leaking	
															78							S-4 Blank	

LAB NUMBER			DEPTH	COL MTD CD	QA CODE	TEMP DEG C	pH	CNDCTVY umho/cm	COMPOSITE ONLY			CONDITION OF SAMPLES UPON RECEIPT AT LAB:				
Yr	Wk	Seq.	Units	Type					ENDING DATE			CUSTODY SEALS INTACT: <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> none				
									Mo	Dy	Time	Type	Freq	CHAIN OF CUSTODY RECORD		
														RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
														RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
														RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
														RELINQUISHED BY: (Signature)	RECEIVED BY MOBILE LAB FOR FIELD ANALYSIS: (Signature)	DATE/TIME
														DISPATCHED BY: (Signature)	DATE/TIME	RECEIVED FOR LAB BY: (Signature)
														METHOD OF SHIPMENT	8/4/88	9/4/88 2:20

Laboratory Copy White

Project Officer Copy Yellow

Field or Office Copy

DEPARTMENT OF ENVIRONMENTAL QUALITY LABORATORIES  
ANALYTICAL RECORDS REPORT

PAGE 1

SATURDAY AUGUST 27th, 1988

CASE NAME: S.J. NUDELMAN & SON, INC.  
SUBMITTER: Culver, Ron

CASE: 880657  
FUND CODE: 45551

<u>ITEM#</u>	<u>SAMPLE DESCRIPTION</u>	<u>RESULT</u>	<u>UNITS</u>
001 @ 10:30	SOIL W/OIL FROM BPA BUSHINGS Completion of PCB Completion of PCB Extraction	Attached Complete	
002 @ 10:45	WIPE OF CAP/BUSHING LEAK Completion of PCB Completion of PCB Extraction	Attached Complete	
003 @ 11:00	WIPE OF SM. CAP LEAK Completion of PCB Completion of PCB Extraction	Attached Complete	
004 @ 11:45	BLANK Completion of PCB Completion of PCB Extraction	Attached Complete	

Department of Environmental Quality  
Laboratories and Applied Research  
Organic Section

GC  
PCB'S  
Complies with EPA NPDES Method 608 and  
RCRA Method 8080

Date: 22 August 1988

Lab #: 88-0657

Sample: S-1

Item #: 1

SSD

Amount MG/KG	Parameter	CAS Registry Number
-----------------	-----------	------------------------

<0.25	PCB Group 1	11104282
<0.10	PCB Group 2	11141165
<0.05	PCB Group 3	53469219
1.24	PCB Group 4	11097691
0.59	PCB Group 5	11096825
1.83	Total PCB	

PCB Group 1 includes PCB 1221 and is calculated as 1221.  
PCB Group 2 includes PCB 1232 and is calculated as 1232.  
PCB Group 3 includes PCB'S 1016, 1242 and 1248 and is  
calculated as 1242.  
PCB Group 4 includes PCB 1254 and is calculated as 1254.  
PCB Group 5 includes PCB's 1260 and 1262 and is calculated  
as 1260.

ND No PCB's observed above indicated detection limit.

Department of Environmental Quality  
Laboratories and Applied Research  
Organic Section

GC  
PCB'S  
Complies with EPA NPDES Method 608 and  
RCRA Method 8080

Date: 22 August 1988

Lab #: 88-0657

Sample: S-2

Item #: 2

SSD

Amount	Parameter	CAS Registry
µG/SAMPLE		Number

<5	PCB Group 1	11104282
<2	PCB Group 2	11141165
<1	PCB Group 3	53469219
14.3	PCB Group 4	11097691
<1	PCB Group 5	11096825
14.3	Total PCB	

PCB Group 1 includes PCB 1221 and is calculated as 1221.  
PCB Group 2 includes PCB 1232 and is calculated as 1232.  
PCB Group 3 includes PCB'S 1016, 1242 and 1248 and is  
calculated as 1242.  
PCB Group 4 includes PCB 1254 and is calculated as 1254.  
PCB Group 5 includes PCB's 1260 and 1262 and is calculated  
as 1260.

ND No PCB's observed above the indicated detection limit.

\* The entire swab sample was analyzed.

Department of Environmental Quality  
Laboratories and Applied Research  
Organic Section

GC  
PCB'S  
Complies with EPA NPDES Method 608 and  
RCRA Method 8080

Date: 22 August 1988

Lab #: 88-0657

Sample: S-3

Item #: 3

SGD

Amount #UG/SAMPLE	Parameter	CAS Registry Number
----------------------	-----------	------------------------

<2.5	PCB Group 1	11104282
<1	PCB Group 2	11141165
<0.5	PCB Group 3	53469219
8.85	PCB Group 4	11097691
<0.5	PCB Group 5	11096825
8.85	Total PCB	

PCB Group 1 includes PCB 1221 and is calculated as 1221.  
PCB Group 2 includes PCB 1232 and is calculated as 1232.  
PCB Group 3 includes PCB'S 1016, 1242 and 1248 and is  
calculated as 1242.  
PCB Group 4 includes PCB 1254 and is calculated as 1254.  
PCB Group 5 includes PCB's 1260 and 1262 and is calculated  
as 1260.

ND No PCB's observed above the indicated detection limit.

\* The entire swab sample was analyzed.



Department of Environmental Quality  
Laboratories and Applied Research  
Organic Section

GC  
PCB'S  
Complies with EPA NPDES Method 600 and  
RCRA Method 8080

Date: 22 August 1988

Lab #: 88-0657

Sample: S-4

Item #: 4

590

Amount #UG/SAMPLE	Parameter	CAS Registry Number
----------------------	-----------	------------------------

<2.5	PCB Group 1	11104282
<1	PCB Group 2	11141165
<0.5	PCB Group 3	53469219
<0.5	PCB Group 4	11097691
<0.5	PCB Group 5	11096825
ND	Total PCB	

PCB Group 1 includes PCB 1221 and is calculated as 1221.  
PCB Group 2 includes PCB 1232 and is calculated as 1232.  
PCB Group 3 includes PCB'S 1016, 1242 and 1248 and is  
calculated as 1242.  
PCB Group 4 includes PCB 1254 and is calculated as 1254.  
PCB Group 5 includes PCB's 1260 and 1262 and is calculated  
as 1260.

ND No PCB's observed above the indicated detection limit.

\* The entire swab sample was analyzed.

ATTACHMENT 6



U.S. ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
1200 SIXTH AVENUE  
SEATTLE, WASHINGTON 98101

FILE COPY

NOV 04 1988

REPLY TO  
ATTN OF:

SO-125

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Stanford J. Nudelman  
S.J. Nudelman and Son, Inc.  
2707 N.W. Nela Street  
Portland, Oregon 97210

Re: Toxic Substances Control Act  
Docket No. 1088-09-33-2615

Dear Mr. Nudelman:

Enclosed you will find a Complaint and Notice of Opportunity for Hearing. A copy of the regulations and Rules of Practice applicable to this proceeding are also enclosed. You are hereby advised to read this document carefully and communicate your answer within the time limit specified.

The Complaint alleges that your company, S.J. Nudelman and Son, Inc., violated the disposal, storage, marking, and recordkeeping provisions of the PCB Regulations issued pursuant to the Toxic Substances Control Act. Accordingly, it is of considerable importance that you attend to this matter forthwith.

You are allowed twenty (20) days to formally answer the complaint unless you request and receive a written extension of time. However, we would like to informally discuss the alleged violations and proposed penalties. Such discussions may result in settlement which would make the filing of a formal answer unnecessary.

Deborah Hilsman, Attorney, is knowledgeable about this subject and can be reached at (206) 442-1810.

Sincerely,

Kenneth D. Feigner, Chief  
Pesticides and Toxic Substances Branch

Enclosures

cc: John A. Foley, EPA Headquarters

BEFORE THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region 10, 1200 Sixth Avenue, SO-125  
Seattle, Washington 98101

THE UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY,

Complainant,

vs.

S.J. NUDELMAN AND SON, INC.,

Respondent.

NO.1088-09-33-2615

NOTICE OF LEGAL PROCEEDINGS;  
NOTICE OF EPA COMPLAINT; AND  
NOTICE OF OPPORTUNITY FOR  
HEARING, AND FOR SETTLEMENT  
MEETING

THE REGIONAL ADMINISTRATOR EPA REGION 10 TO THE FOLLOWING RESPONDENT:

S.J. Nudelman and Son, Inc.

2707 N.W. Nela Street

Portland, Oregon 97210

YOU ARE HEREBY GIVEN NOTICE AS FOLLOWS:

1. Administrative proceedings have been commenced against you by the U.S. Environmental Protection Agency ("EPA").

2. You are hereby NOTIFIED of, and served with, the ATTACHED TRUE COPY of a COMPLAINT filed in these proceedings. It explains EPA's claims for civil penalties proposed to be adjudged against you.

3. The signed original of the attached COMPLAINT is filed with the EPA Regional Hearing Clerk, SO-125, Park Place Bldg., 1200 Sixth Avenue, Seattle, King County, Washington, 98101, Phone No. (206) 442-1141.

4. The ATTACHED COMPLAINT is a claim by EPA for civil penalties to be assessed against you. Adjudicative proceedings to that end are controlled by the "Consolidated Rules of Practice" (copy attached to the Complaint) appearing in Title 40, Code of Federal Regulations, Part 22.

5. You have a RIGHT TO A HEARING BEFORE AN ADMINISTRATIVE LAW JUDGE:

A. To contest any material allegation of the attached penalty COMPLAINT which you genuinely deny; and/or

B. To contest the amount and appropriateness of the civil penalties proposed in the COMPLAINT.

However, TO OBTAIN A HEARING YOU MUST FILE A WRITTEN RESPONSE to the COMPLAINT called an "Answer."

6. YOU HAVE ONLY TWENTY (20) CALENDAR DAYS (if you choose to respond) from the day you receive this Notice within which to file a WRITTEN RESPONSE to the attached COMPLAINT. Such a written response or "Answer" must be filed by having it DELIVERED ON TIME to the EPA Hearing Clerk (address in paragraph 3). Copies of all papers filed by you must be delivered at the same time (by mail or otherwise) to the EPA attorney whose name appears below in paragraph 10.

7. ANY SUCH WRITTEN RESPONSE YOU FILE TO THE COMPLAINT MUST:

- A. Request a hearing on the Complaint (or your right to request a hearing on the Complaint is deemed waived); and
- B. Contain clear and direct admissions, denials, and/or explanations with respect to each of the allegations of the Complaint; and
- C. Contain a definite statement of any facts which you contend constitute grounds for defense against the penalty liability stated in the Complaint; and
- D. Contain a concise statement of all material facts relating to allegations in the Complaint which you intend to place in issue at a hearing.

8. IF YOU FILE A LATE WRITTEN RESPONSE, OR IF YOU OMIT ENTIRELY FILING ANY WRITTEN RESPONSE, YOU ARE SUBJECT TO THE ENTRY OF AN ORDER OF DEFAULT on the Complaint. After an order of default, penalties can be adjudged and imposed on you without any further notice to you.

9. AN INFORMAL SETTLEMENT MEETING can be held at your request. You may discuss there:


- A. Whether or not the violations alleged truly occurred; and/or
- B. The amount and appropriateness of any civil penalty considering: the size of your business, the gravity of any such violations, the effect of civil penalties on your ability to continue in business, and any other appropriate factors.

Such a meeting might resolve matters by a settlement which would make a hearing unnecessary.

10. In order to arrange an informal settlement meeting you must contact Deborah Hilsman, EPA attorney, at (206) 442-1810, 1200 Sixth Avenue, M/S S0-125, Seattle, Washington 98101, not later than twenty (20) calendar days from receipt hereof.

11. PLEASE TAKE NOTICE that an EXTENSION OF TIME to make and file your written response may be negotiated with the EPA attorney named above. If an agreement is reached to extend time, a written stipulation and an agreed order will be entered in accordance with 40 C.F.R. §22.16(c).

ISSUED AT SEATTLE this 4<sup>th</sup> day of November, 1988.

  
KENNETH D. FEIGNER, Chief  
Pesticides and Toxic Substances Branch

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8 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
9 BEFORE THE REGIONAL ADMINISTRATOR  
10 Region 10  
Seattle, Washington

11 In the Matter of:

12 S.J. Nudelman and Son, Inc.,

13 Respondent.  
14

DOCKET NO. 1088-09-33-2615

COMPLAINT

15 I.

16 JURISDICTION

17 1. This is an administrative action instituted pursuant to  
18 Section 16(a) of the Toxic Substances Control Act (hereinafter "TSCA"),  
19 15 U.S.C. § 2615(a), for the assessment of a civil penalty. The complainant  
20 is Region 10, United States Environmental Protection Agency (hereinafter  
21 "EPA"). Complainant has reason to believe that the above-named respondent  
22 has violated federal regulations addressing the use and/or disposal of  
23 polychlorinated biphenyls (PCBs) (40 C.F.R. Part 761 promulgated under  
24 Section 6 of TSCA), and thereby has violated Section 15 of TSCA, 15 U.S.C.  
25 § 2614.  
26  
27  
28



II.

FINDINGS AND VIOLATIONS

2. On August 4, 1988, an EPA inspection was performed at S.J. Nudelman and Son, Inc., 2707 N.W. Nela Street, Portland Oregon. The purpose of the inspection was to determine compliance with the TSCA, 15 U.S.C. § 2601, et seq., and specifically the PCB regulations pursuant to 40 C.F.R. Part 761. The inspection disclosed the following violations:

VIOLATION ONE

3. REGULATION - DISPOSAL - 40 C.F.R. § 761.60(d)(1) and (2) states that: (1) spills and other uncontrolled discharges of PCBs at concentrations of 50 ppm or greater constitute the disposal of PCBs; and (2) PCBs resulting from the cleanup and removal of spills, leaks, or other uncontrolled discharges must be stored and disposed of in accordance with 40 C.F.R. § 761.60(a). Disposal of PCBs in any other manner constitutes the improper disposal of PCBs.

4. REQUIREMENT: If a transformer does not have a nameplate or if there is no information available to indicate the type of dielectric fluid in it, the transformer must be assumed to be a PCB Transformer unless it is tested and found to contain less than 500 ppm. Refer to 44 Federal Register, May 31, 1979, page 31517.

1           5.    VIOLATION ONE:       A transformer identified as General  
2 Electric, serial number 6408310 Typek, 50,000 v 115/230, was leaking at the  
3 time of the inspection. There was no indication what type of dielectric  
4 fluid the transformer contained and it is assumed to be a PCB Transformer.  
5

6                                   VIOLATION TWO  
7

8           6.    REGULATION - DISPOSAL:   40 C.F.R. § 761.60(a)(2)  
9 states that mineral oil dielectric fluid from PCB-Contaminated Electrical  
10 Equipment containing a PCB concentration of 50 ppm or greater, but less than  
11 500 ppm, must be disposed of in one of the following:

- 12               (i) In an incinerator that complies with § 761.70.  
13               (ii) In a chemical waste landfill that complies with § 761.75  
14                   if information is provided to the owner of the chemical  
15                   waste landfill that shows that the mineral oil dielectric  
16                   fluid does not exceed 500 ppm PCB and is not ignitable  
17                   waste as described in § 761.75(b)(8)(iii).  
18               (iii) In a high efficiency boiler that complies with the  
19                   criteria contained in § 761.60(a)(2)(iii)(A).  
20

21           7.    REGULATION:   40 C.F.R. § 761.3 states that oil filled  
22 electrical equipment other than circuit breakers, reclosers, and cable whose  
23 PCB concentration is unknown must be assumed to be PCB-Contaminated  
24 Electrical Equipment.  
25  
26  
27  
28

8. VIOLATION TWO: There were many electrical bushings on site which came from capacitor potential transformers. The bushings --- imputed PCB-Contaminated electrical equipment --- had been drained of the oil in them. The oil, assumed to be PCB-Contaminated, was not disposed of in accordance with 40 C.F.R. § 761.60(a).

### VIOLATION THREE

9. REGULATION - STORAGE 40 C.F.R. § 761.65(b) requires that any facility used for the storage of PCBs and PCB Items designated for disposal have:

- 1) adequate walls and roof to prevent rainwater from reaching the stored PCBs and PCB Items;
- 2) adequate floor constructed of continuous smooth and impervious materials with a continuous curbing a minimum six inches high; and
- 3) no drain valves, floor drains, or other openings that would permit liquids to flow from the curbed area.

10. VIOLATION THREE: The area where the imputed PCB transformer that is the subject of Violation One was stored did not meet the requirements for a PCB storage for disposal area in that there were no walls and roof to prevent rainwater from reaching the transformer, the floor was not constructed of materials impervious to PCBs, and there was no continuous curbing providing secondary containment.

1  
2  
3 VIOLATIONS FOUR AND FIVE

4 11. REGULATION - MARKING: 40 C.F.R. § 761.40 requires that all  
5 PCB Containers, PCB Transformers, Large PCB Capacitors, and PCB storage for  
6 disposal areas be marked in accordance with 40 C.F.R. § 761.45. In general,  
7 a 6 inch by 6 inch PCB label is required, although the label may be reduced  
8 in size proportionately to a minimum of 2 inches by 2 inches for equipment  
9 too small to accommodate the standard 6 inch by 6 inch label.

10 12. VIOLATION FOUR: The imputed PCB transformer that is the  
11 subject of Violation One was not marked with the required PCB label at the  
12 time of the inspection.

13  
14 13. VIOLATION FIVE: The area where the imputed PCB  
15 Transformer that is the subject of Violation One was stored was not marked  
16 with the required PCB label at the time of the inspection.

17  
18 VIOLATION SIX

19  
20 14. REGULATION - RECORDS & MONITORING: 40 C.F.R. § 761.180(a)  
21 requires that, beginning July 2, 1978, facilities using or storing at one  
22 time at least 45 kilograms (99.4 pounds) of PCBs contained in PCB  
23 Container(s), or one or more PCB Transformers, or 50 or more PCB Large High  
24 or Low Voltage Capacitors, develop and maintain records on the disposition of  
25 the PCBs and PCB Items. The records shall form the basis of an annual  
26 document prepared by July 1, covering the previous calendar year.

15. VIOLATION SIX: The facility failed to prepare and maintain annual reports on the disposition of PCBs and PCB Items.

III.

PROPOSED CIVIL PENALTY

16. Section 16 of TSCA, 15 U.S.C. § 2615, and the regulations promulgated thereunder, 40 C.F.R. § 761, et seq., authorize a civil penalty of up to \$25,000.00 per day for each violation of TSCA. Based on the facts given in Section II above, the nature, circumstances, extent and gravity of the above-cited violations, and degree of culpability, the following penalties are hereby proposed:

	<u>Regulation</u>	<u>Requirement</u>	<u>Penalty Amount</u>
1.	40 C.F.R. § 761.60(d)(1) & (a)	Disposal	\$ 5,000
2.	40 C.F.R. § 761.60(a)(2)	Disposal	\$ 5,000
3.	40 C.F.R. § 761.65(b)	Storage	\$ 1,500
4.	40 C.F.R. § 761.40	Marking	\$ 1,500
5.	40 C.F.R. § 761.40	Marking	\$ 0*
6.	40 C.F.R. § 761.180(a)	Records	\$ 1,000
			<u>\$14,000</u>

\*Same type, same location as Violation 4

17. Payment of such penalty shall be by check made payable to the United States Treasurer, remitted to the following:

Environmental Protection Agency, Region 10  
(Regional Hearing Clerk)  
P.O. Box 360903M  
Pittsburgh, Pennsylvania 15251

1  
2 with a copy sent to:

3 Regional Hearing Clerk  
4 Office of Regional Counsel  
5 Environmental Protection Agency  
6 1200 Sixth Avenue, SO-125  
7 Seattle, Washington 98101

8  
9 ISSUED AT SEATTLE this 4<sup>th</sup> day of November, 1988.

10  
11   
12 KENNETH D. FEIGNER, Chief  
13 Pesticides and Toxic Substances Branch  
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**ATTACHMENT 7**

INTERVIEW SUMMARY  
S. J. Nudelman & Son  
Site Visit  
March 14, 1989

Attendees: Michael J. Zollitsch, ODEQ  
Stanford Nudelman  
Marvin Nudelman

Question: What is the site's name?  
Answer: S. J. Nudelman & Son

Question: What was the previous use of the property?  
Answer: It was part of the Portland Landfill and City Incinerator near Guilds Lake.

Question: How long have you owned the property?  
Answer: Approximately twenty-five years.

Question: What kind of site security do you use?  
Answer: Cyclone fence and one gate on the north side of the property.

Question: Are most of the facilities around yours commercial/industrial?  
Answer: They are all warehouses.

Question: What type of water supply do you use?  
Answer: The City of Portland.

Question: Do you have any hazardous waste storage or disposal areas?  
Answer: We have no hazardous waste so we don't need any disposal or storage areas.

Question: Do you have any wells on-site?  
Answer: No.

Question: Where are the entrances to the site?  
Answer: Only on the north side of the site.

Question: Is the office the only building on-site?  
Answer: Yes.

Question: Are there any outside process areas?  
Answer: We don't really process anything, but we do have outside work areas.

Question: Do you have any storage tanks or waste treatment systems?  
Answer: No.

Question: Do you generate or store any waste on-site?  
Answer: No.

Question:

Do you have any feedstocks containing hazardous materials?

Answer:

We have one General Electric transformer that was found to have PCB's in it. It has been on the site for twenty years. We don't really know where it came from.

Question:

Do you dismantle and recover materials from transformers?

Answer:

We did for one year, about five years ago. All the transformers we bought came from Bonneville Power Administration (BPA) and contain less than one part per million of PCB.

Question:

Do you have any plans for the transformer that contains PCB's?

Answer:

We have plans to remove it. We may have it removed within the next month. General Electric has been contacted. They took a sample of oil from the transformer and had it analyzed. They have submitted an estimate and a proposal for removal and disposal of the PCB item.

Question:

How big is the area where the transformer is located?

Answer:

About two square feet.

Question:

What do you do with any waste oils you recover?

Answer:

We don't recover any oils. Previously when we did five years ago, Harbor Oil took the oil.

Question:

Do you have any environmental permits?

Answer:

No.

Question:

How would you describe the type of business you operate i.e., salvaging and dismantling of equipment?

Answer:

More and more we are operating as a brokerage. Most of our buying and selling is done over the telephone. We don't bring most of the salvage items to the site any more.

Question:

Could I have a copy of the sample analysis on the PCB transformer and two pages from G.E.'s proposal?

Answer:

Yes.

ATTACHMENT 8

NORTHWEST GEOLOGICAL SERVICES, INC.

*Consulting Geologists and Hydrogeologists*  
2505 N.E. 42nd Avenue, Portland OR 97213-1201  
503-249-1093

Department of Environmental Quality  
**RECEIVED**  
OCT 28 1988

Environmental Cleanup Division

Preliminary Assessment of  
Potential Contamination  
2615-2619 N.W. Industrial St.  
Guilds Lake Area  
Portland, Oregon

25 October 1988

Prepared for  
Marathon U.S. Realties, Inc

## Table of Contents

Section	Page
1.0 Introduction.....	1
1.1 Purpose of Study.....	1
1.2 Scope of Study.....	1
1.3 Limitations.....	2
2.0 Site History.....	3
2.1 Location and Setting.....	3
2.2 Previous Uses of Site.....	3
2.3 Present Use of Site.....	5
3.0 Geology and Hydrogeology.....	7
3.1 Regional Geology and Hydrogeology.....	7
3.2 Site Geology and Subsurface Conditions...	7
3.3 Site Hydrogeology.....	10
4.0 Assessment of Potential Contamination.....	13
4.1 Hydrocarbon Contamination.....	13
4.2 Lead Contamination in the Landfill Debris and Incinerator Ash.....	16
5.0 Conclusions.....	19
List of References.....	20
Appendix A - Field Methods.....	22
Appendix B - Dames & Moore and Northwest Testing Boring Logs.....	25



## List of Plates, Figures and Tables

FIGURE	No.
Site Location Map.....	1
Boring and Cross Section Locations.....	2
Geologic Cross Sections A-A' and B-B'.....	3
Geologic Cross Sections C-C' and D-D'.....	4
Logs of Borings B-1 to B-10.....	5a to 5j
Location of Buried Dikes, Incinerator Ash and Guilds Lake Bottom.....	6
Groundwater Elevations.....	7
Hydrographs of Wells B-6, B-8 and B-9.....	8
Distribution of Hydrocarbons .....	9
Distribution of Lead: Soil and Water.....	10
TABLE	No.
Guilds Lake: Portland City Directory.....	1
Boring Locations and Depths.....	2
Groundwater Elevations.....	3
Summary of Chemical Analyses.....	4

## 1.0 INTRODUCTION

This report presents the results of NGS, Inc.'s preliminary assessment of potential soil and groundwater contamination at Marathon US Realties, Inc.'s property located at 2615-2619 N.W. Industrial St. in the Guilds Lake Area of Portland, Oregon.

### 1.1 Purpose of Study

The original purpose of the study was threefold. The first purpose was to sample the soil and groundwater at the site to assess the actual presence of contamination suspected to be present in soils from buried ash and landfill debris from the former Portland Garbage Incinerator and the associated landfill, and from underground storage tanks (USTs) formerly buried at the site.

Second, if no contamination was found in the samples, the study was intended to provide enough information to adequately assess the environmental risk of acquiring and further developing the property. Third, if soil or groundwater contamination of concern was found to be present, the study was intended to provide sufficient information to define the on-site extent and source of the contamination.

During the field work for the study, free hydrocarbons were discovered floating on the groundwater in boring B-3 (Figure 2). Accordingly, the study was expanded in an attempt to assess the volume and extent of the hydrocarbons, as well as to identify their source.

### 1.2 Scope of Study

The original scope of study included the following tasks:

- \* Drill, log and sample 6 borings to depths of approximately 20 to 40 ft.,
- \* Field screening of samples for volatile organic compounds with a photoionizing detector, acidity (pH), and conductivity,
- \* Laboratory analysis of selected soil and groundwater samples for metals (lead, mercury, manganese, chrome, cadmium), and petroleum hydrocarbons,
- \* Laboratory analysis of selected soil and groundwater samples for volatile organic compounds (BTEX),
- \* Review and interpretation of the results of drilling, sampling, chemical analyses, and field screening, and
- \* Prepare this report of our findings, professional interpretations and conclusions.

After hydrocarbons were found floating on the groundwater in B-3, the scope was expanded to include the following additional tasks:

- \* Drill, log and sample 4 borings to depths of approximately 20 to 30 ft.,
- \* Construct 3 groundwater monitoring/sampling wells (in 2 of the 4 additional borings and/or in one of the 6 originally scheduled borings,
- \* Survey the locations and elevations of the additional wells and borings,
- \* Measure water levels in the wells (to establish an accurate direction of groundwater gradient),
- \* Collect samples of groundwater from the wells, and
- \* Laboratory analysis of 4 groundwater samples for petroleum hydrocarbons, 1 groundwater sample for benzene, toluene, xylene and ethylbenzene (BTEX) and fuel fingerprint.

### 1.3 Limitations

This report is intended exclusively for your use for the specific purpose stated herein. This study was performed and this report prepared in accordance with that degree of care and skill ordinarily exercised under similar conditions by members of our profession as described in Paragraph 7 of the General Conditions and Fee Schedule (dated 1/88). No other Warranty or representation, expressed or implied, is made or intended in our proposals, written, or oral reports, or any other presentation of our work.

## 2.0 SITE HISTORY

### 2.1 Location and Setting

The site is located at 2615-2619 N.W. Industrial Street, Portland, OR. It is in the southeast part of Donation Land Claim 54, Township 1 North, Range 1 East (Willamette Meridian, Figure 1).

The site slopes gently from N.W. Industrial Avenue to the north. Prior to placement of the various fills and landfills, the entire site was part of Guilds Lake, and within the 100-year flood plain of the Willamette River. At present the site is above the legally defined 100 year flood plain (FEMA, 1982, City of Portland, OR, Flood Insurance Rate Map, Panel 15).

The site has had several addresses. Previous addresses include (but probably are not limited to) "Foot of 25<sup>th</sup>", "Foot of Lake", and "2800 N.W. 25<sup>th</sup>".

### 2.2 Previous Uses of Site

Previous uses of the property were assessed by a review of topographic and geologic maps of the area and a review of U.S. Army Corps of Engineers' aerial photographs. Also checked were readily available public records to identify businesses that could have used, disposed of, or spilled toxic or hazardous substances on the site. The records reviewed included City Directories, Sanborn Fire Insurance maps, City of Portland plumbing permit files, records of the Fire Marshal, and the files of the Department of Environmental Quality.

Listings for the site, and adjacent properties, from City Directories are summarized on Table 1. The most recent listings for the site area were verified by visiting each address during September 1988.

Aerial photographs of the area obtained from the U.S. Army Corps of Engineers, Portland District provide "snapshots" of past uses of the site from 1936 to 1986. Photos and maps and documents from the Oregon Historical Society provide some additional information on the use of the site back to 1904. The dates of available photos maps and documents are summarized in the list of References.

#### 2.2.1 Filling of Guilds Lake

During the early 1900's, the site appears to have been partly in and partly along the shore of Guilds Lake, a man made lake created in the Willamette River floodplain for the 1904 Lewis and Clark Exposition. The lake was reportedly made by filling the ends of an abandoned meander channel with silt sluiced from the Kings Heights and Willamette Heights areas.

Records at the Historical Society indicate that filling Guilds Lake began around the mid-1920's with sediment dredged from the Willamette River channel. By the early 1930's Guilds Lake was mostly filled and industry developed on the new fill along the edges of the previous lake.

### 2.2.2 Crematory

The earliest recorded facility in the site area is a crematory operated by the City of Portland at the "Foot of 25th". City Plumbing Permit, dated 16 and 25 March 1909, is for modification of the Crematory, suggesting a somewhat earlier origin for the facility. As indicated by the Portland City plumbing permit files, the crematory was located on the same property as the Portland Garbage Disposal Incinerator.

### 2.2.3 Portland Garbage Incinerator and Landfill

The exact date of construction of the Portland Garbage Incinerator and beginning of operation has not been determined; however, a plumbing permit (#79483) dated 7 December 1927 records a repair at the building, and shows the City as the owner. The incinerator is shown on the 1932 Sanborn fire insurance map and was first listed in the Portland city directory in 1934. However, records at the Multnomah County Library indicate that the City authorized construction of incinerators in 1926 (Portland Oregonian). A search of the state DEQ and city fire bureau files yielded no information about the incinerator.

An aerial photograph dated 10 May 1936 definitely locates the incinerator within the study site (see Figure 6). The distribution of incinerator ash inferred from the 1936 Corps' photograph are shown on Figure 6, as are locations of the dikes that contained the ash and garbage landfill. As closely as we can determine from the available maps and photos, the containment dikes were located approximately along the northern and western property boundaries, and from the south end of Building A east-south-east to the southeast property boundary where the incinerator was located (Figure 6). Concentrations of what appears to be coarse garbage debris (possibly construction rubble, scrap metal and other garbage) in 1936 are visible.

A 1940 aerial photograph shows that by 1940 the ash deposits (fill) from the incinerator appear to have gained in height but only slightly in lateral distribution. The garbage dump to the northwest, however, had grown considerably from its 1936 extent.

The incinerator building was also visible on 1948 through 1977 air photos. However in the 1948 photo, the ash and garbage deposits are masked by vegetation, which suggests that the incinerator and dumping activities has largely ceased by 1948.

#### 2.2.4 West Coast Fast Freight Terminal

The West Coast Fast Freight Terminal building, 2800 S.W. 25th Avenue, occupied the site from 1950 until it was demolished between March 1978 and September 1979. The portion of the terminal indicated as storage and office on the Sanborn maps (dated 1955) appears to actually be the old Portland Garbage Disposal Incinerator building (Figure 6). Our examination of air photos dated 1948 and 1967 indicates that the location, size, and shape of the incinerator building is essentially identical to the storage/office building of the freight terminal.

The 1-story freight terminal was added between December 1950 and October 1951 according to a plumbing permit #19926. This permit also confirms that the building was connected to the sewer. The terminal consisted of a 300 foot long by 60 foot wide loading dock extending northwest from the old incinerator building and a 200 by 150 foot maintenance building located at the northwest end of the loading dock. The buildings were demolished between March 1978 and September 1979.

The terminal was occupied by other transportation companies after West Coast Fast Freight (Table 1). These included System Tank Lines (which may have been a division of West Coast Fast Freight), Pacific Intermountain Express and Tank Division, and United Freight Lines. Hormel, Inc. and Ringsby United, Inc. also used the terminal for their truck fleets (Table 1).

Several underground tanks are on file at the Portland Fire Bureau for the freight terminal address. A total of five permits are recorded as having been issued to System Terminal on 25 January 1951 for one 10,000 gallon tank for drain oil, one 10,000 gallon tank for motor oil, two 3000 gallon tanks for gasoline, and one 10,000 gallon tank for diesel fuel. No details with regard to types, locations or possible removal of the tanks are given on the permit. A plan of the site by Marks and Chase, Inc., dated 20 July 1978 shows two clusters of underground tanks buried at a fuel island near B-1 (3 tanks) and at the northeast corner of the maintenance building near B-5 (4 tanks, see Figure 2 for locations of B-1 and B-5).

#### 2.3 Present Use of Site

The site is presently occupied by two warehouses (Figure 2) and parking areas, that were constructed in late 1979 and early 1980. Site preparation for the warehouses included over-excavation of the surface soils (landfill debris and incinerator ash) and reinstallation of the soil as compacted fill.

The north warehouse (Building A) is used by United Beer Distributors, Inc. The south part of the east warehouse (Building B) is occupied by G & G Paper Co. The north part of Building B is leased to Consolidated Cargo.



United Beer Distributors operates a truck-fueling station for its fleet. The station is located near the southeast corner of Building A. There are 2 buried fuel tanks of 12,000 capacity (unleaded gasoline and diesel). The tanks are of epoxy-glass construction, and less than 3 years old.

### 3. GEOLOGY AND HYDROGEOLOGY

#### 3.1 Regional Geology and Hydrogeology

The site is situated within the historic flood plain of the Willamette River. The area is underlain by flood-plain alluvium that consists of silt, fine sand, and gravel deposits. The alluvium is Recent to Pliocene in age and ranges from a few feet in thickness southwest of the site to in excess of 100 feet near the Willamette River. Logs of nearby wells suggest that the alluvium is about 100 to 140 feet in thickness at the site.

The alluvium is underlain by the Troutdale Formation which is underlain, in turn, by the Columbia River Basalt. The Troutdale consists of up to several hundred feet of gravel and cemented gravel (conglomerate) with local lenses of sandstone and siltstone. In the site area, the Troutdale is probably about 100 feet thick. The Columbia River Basalt consists of a series of alternating hard, dense lava flows and rubbly cinder zones. It is probably 300 to 500 feet in thickness near the site.

The Troutdale Formation and Columbia River Basalt comprise regional aquifers. In general, groundwater in all 3 aquifers (alluvium, Troutdale and Basalt) flows from high areas southwest of the site towards the Willamette River (Brown, 1963). Groundwater velocities for the alluvial aquifer have been estimated to be a few feet per year (2 to 20 feet/year, Dames & Moore, 1987). Velocities in the underlying Troutdale and Columbia River Basalt have not been measured, but are likely to be considerably higher than those in the alluvium.

#### 3.2 Site Geology and Subsurface Conditions

Interpretation of subsurface conditions at the site is based upon a total of 27 borings ranging in depth from 20 to 84 feet. Locations of the borings are tabulated on Table 1 and shown on Figure 2. Ten of the borings (B-1 through B-10) were made for this study. Three of the borings for this study were completed as groundwater sampling/monitoring wells (B-6, -8 and -9). Sixty-three samples of subsurface soil and ten samples of groundwater were collected for this study (drilling and sampling methods used are described in Appendix A). Logs of the Borings for this study are shown on Figures 5a to 5j.

Earlier borings at the site include: 8 borings by Dames & Moore in 1978 (Borings DM2 B-1 to DM2 B-8 on Figure 2); 5 borings by Northwest Testing Laboratories in 1977 (NWT-1 to NWT-5 on Figure 2) and 4 borings by Dames & Moore in 1962 (DM1 B-1 to DM1 B-4 on Figure 2). Logs of the borings from these previous studies are included in Appendix B.

The borings and samples from this study, together with logs of the borings from the earlier studies indicate that there are 5 geologic units at the site. They are: native alluvial soils; dredge fill, landfill debris, incinerator ash, and engineered fills. Figures 3 and 4 are geologic cross sections that show our present interpretation of the subsurface distribution of the geologic units. The following sections describe these units.

### 3.2.1 Native soil (Alluvium)

The native soils (alluvium) underlie the dredge spoils and other fills at depths from about 12 to over 40 ft. As shown on Figures 3, 4 and 6, the top of the alluvium slopes from the top of the old river bank at about elevation 35 beneath the southeast part of the site down to below sea level in the west part of the site beneath the former bed of Guilds Lake.

The alluvium generally consists of brown to greenish-brown, soft to medium-stiff, fine sandy silt, with local layers and lenses of silty fine sand. Four borings bottomed in gravel beneath the silt and silty sand (NWT-1 and -2, and DM2 B-1 and -7) at quite different elevations. We believe that the gravels encountered are likely bar and stringer deposits surrounded by silt and sand, rather than a continuous gravel layer at depth.

The permeability of the silt and silty sand is probably moderate to low ( $10^{-4}$  cm/sec to  $10^{-5}$  cm/sec), based on tests in similar materials in Northwest Portland (e.g. Dames & Moore, 1987). Permeability of the gravel is not known, but likely is considerably higher than the silt.

### 3.2.2 Dredge Fill

The dredge fill consists of sand and some gravel that was used to construct dikes along the north and northwest boundaries of the site. The fill appears to have been dredged from the Willamette River, and pumped to the site. The approximate location of the dikes is shown on Figure 6. The dikes were apparently placed to provide containment for the incinerator ash and landfill debris. The top of the dikes appears to have been at about elevation 33 ft (in B-7), about 8 to 10 ft. below the present ground surface in the area of the dikes.

The dredge fill consists of brown, loose, fine to coarse, often pebbly, sand. Occasionally it has a trace of silt, but is generally quite clean.

The sand appears to have relatively high permeability, (probably  $10^{-2}$  cm/sec to  $10^{-3}$  cm/sec) based upon its clean nature. This interpretation is supported by the rapid equilibration of groundwater after sampling in Borings B-7, -8, and -10.

### 3.2.3 Incinerator Ash

The incinerator ash consists of ash, cinders, and other refractory detritus such as glass, porcelain, brick and metal from the old Portland Garbage Incinerator. An oblique air photo from the 1920s and vertical air photos from 1936 and 1940 indicate that the ash was landfilled in a fan-shaped area northwest of the incinerator (Figure 6). The geologic cross sections (Figures 3 and 4) show the inferred subsurface distribution of the ash.

Both the photos and the borings indicate that landfilling of the landfill debris occurred at the same time as placement of the ash. Thus the ash and landfill debris are mixed together around the margin of the ash disposal area. Incinerator ash is also mixed with landfill debris in some borings away from the ash disposal area, suggesting that the ash may have been used as a cover for the debris.

The ash consists of black to red brown, loose to medium, silty, fine to coarse sand (cinders). Its texture varies from silty medium sand to silty, gravelly coarse sand. Where it is wet, the color is black, although it may contain varicolored fragments of various refractory materials. The dry, or slightly damp ash is generally tan to reddish brown.

The ash appears to generally have moderate permeability, although zones of locally high and low permeability are probably present. In the upper 15 feet of Boring B-5 the ash appeared be loose enough to have a moderately high permeability, even though the silt content was fairly high (10-15 percent).

### 3.2.4 Landfill Debris

The landfill debris is highly variable. It contains decomposed organic material, large to small fragments of brick, concrete, metal, wire, wood and glass. Voids are also present locally. In some samples the debris was dominantly wood, masonry, or soil, suggesting that debris from demolished buildings and excavations may make up a fair percentage of the landfill.

As noted in section 3.2.3, the debris was landfilled at the same time as the incinerator ash. It appears to occur below the ash, mixed with the margin of the ash, and between the ash and the dredge-fill dikes. The cross sections (Figures 3 and 4 show the inferred subsurface distribution of the debris.

Permeability of the debris appears to be extremely variable. However, the borings and air photos suggest a zone of potentially high permeability along the northwest margin of the ash. This area, generally extending from B-3 through DM2 B-4 to DM1 B-3 (Figures 2 and 6) appears to contain abundant coarse debris that was filled into the low area between the dike and the terminus of the incinerator ash deposit.

Air photos indicate that several shallow fills were placed on the site after closing of the incinerator and landfill. For example, ash appears to have been used to fill over the dike between B-7 and B-10, and may have been used to fill in a low area near B-4.

### 3.2.5 Engineered Fill

Engineered fills were placed in 1979 for construction of the two present buildings and two planned buildings. Van Domelen and Looijenga (Engineers for the Phase I development) report that the top ten feet of the landfill debris and ash were excavated and replaced in compacted lifts. Parking and trafficways were excavated or filled to grade. Filled areas appear to have been filled with spoils from the excavated areas.

A construction mat of 2-inch minus crushed rock appears to have been placed beneath paved areas. It was generally 2 to 2.5 ft. in thickness in the borings.

## 3.3 Site Hydrogeology

### 3.3.1 Alluvium

The sand and sandy gravel lenses and stringers in the alluvium have relatively high permeability and locally form productive aquifers. However, the lenses of clay and silt have only a low to moderate permeability and limit the volume of groundwater that can be produced from the alluvium (Brown, 1963; Dames & Moore, 1987). As discussed in section 3.2.1 tests in similar materials in Northwest Portland (e.g. Dames & Moore, 1987) suggest that the horizontal permeability of the silt and silty sand is probably moderate to low ( $10^{-4}$  cm/sec to  $10^{-5}$  cm/sec). Vertical permeability in the alluvium is likely in the range of 10 to 100 times less than the horizontal (Dames & Moore, 1987). permeability (Permeability of the gravel is not known, but likely is considerably higher than the silt.

No hydrogeologic data for the alluvium at the site are available, because the wells in Borings B-6, -8 and -9 are completed in the fills. However, general conditions can be inferred from other studies and well logs in Northwest Portland.

Recharge to the alluvium is by direct infiltration from precipitation south of the site. Groundwater flow in the alluvium is generally from the high areas south and southwest of the site to the Willamette River, northeast of the site. Locally, recharge may occur to the alluvium by downward leakage from local aquifers perched in the various fills in the site area, as well as from utility trenches. However, throughout most of the area of the former Guilds Lake, low permeability silts on the former lake bottom retard downward leakage to the alluvium.

### 3.3.2 Fills

The fills at the site are highly variable in their hydraulic properties, and their subsurface geometry is fairly complex. However the available elevations of the groundwater within the fills appear to be consistent with the apparent subsurface geometry. The observations are limited to the water levels measured in Borings B-3 to B-10 during and after drilling, and water levels observed subsequently in the wells in B-6, B-8 and B-9 (summarized on Table 3).

#### 3.3.2.1 Groundwater Data for the Fills

Groundwater elevations observed in the fills for 6 September to 11 October are tabulated on Table 3. The first set of observations on Table 3 are from the date of drilling. Subsequent observations on Table 3 are from the periodic measurement of the 3 monitoring wells (B-6, -8 and -9).

Water levels measured in the borings are shown on Figure 7. Measurements in borings B-3, B-4, B-5, B-7 and B-10 before and after groundwater sampling showed extremely fast recovery after sampling (5 to 10 minutes), so we believe the water levels measured represent the water level in the fills to within approximately a tenth of a foot. B-1 and B-2 did not recover quickly, because the bottom of the auger was in the alluvium when they were sampled. Water levels from B-1 and B-2 are not considered representative of the fill.

Hydrographs of B-6, -8 and -9 (Figure 8) show the groundwater was perturbed by building the wells in the borings (note the rise in B-6 and the declines in B-8 and -9 from 10 Sept to 16 Sept). Thus the measurements made in the wells on 10 September are not representative of the fill. However, we believe that the measurements taken on 16 Sept are representative because the wells had 6 days to equilibrate. Both initial and equilibrated water levels are shown for the 3 monitoring/sampling wells on Table 3.

#### 3.3.2.2 Groundwater Gradients and Flow Direction

Figure 7 indicates that for most of the site, the groundwater gradient in late summer is gentle, from east to west. However, the data suggest a reversal in the gradient occurs between B-9, and B-8 and -7. This reversal forms a slight depression, or groundwater trough that coincides with the area of apparent higher permeability in the landfill debris (section 3.2.4). The center of the trough also appears to coincide with the hydrocarbon contamination found in B-3, and in several of the 1978 Dames & Moore borings.

The data suggest that the higher permeability of the landfill material in this area may produce a "drain" in the fill. This effect causes gradients, and flow, in the fills to be



towards the trough, and then southwest along the trough.

### 3.3.2.3 Recharge to and Discharge from the Fill

The rapid response of wells B-6, -8 and -9 to rainfall over the weekend of 17 - 18 Sept (Figure 8) indicates that the fill aquifer responds quite rapidly to direct infiltration into the unpaved areas of the site and storm sumps (dry wells) in the paved areas. Approximately 1.5 inches of rain raised groundwater levels by .05 in. in B-6 to nearly .23 in. in B-8. The greater increases in B-8 and -9 are probably due to their proximity to sumps for Buildings A and B, and the parking area.

The fill probably also receives recharge from runoff from the higher areas south and east of the site, and may receive some lateral inflow from the alluvium at higher elevation east of the site (Figures 3 and 4). A more complete evaluation of the recharge would require groundwater measurements as the rainy season progresses.

The dry-season gradients (Figure 7) suggest that discharge from the site fills is by lateral flow to the west. There is likely some downward leakage to the underlying alluvium. However, we believe that the low permeability of the sandy silt / silty sand below the fill (at the bottom of the former Guilds Lake) limits the leakage to a small percentage of the total water budget.

#### 4.0 ASSESSMENT OF POTENTIAL CONTAMINATION

Historic uses of the site suggest that three sources of possible contamination are of concern: incinerator ash, landfill debris, and underground storage tanks. To assess potential soil contamination, 10 borings were drilled from depths of 21.5 to 41.5 feet (see Table 2). A total of 63 samples of subsurface soil were collected from the borings, and drill cuttings were monitored continuously by a professional geologist. Samples and cuttings were screened in the field for pH, resistance, organic vapors and visual indications of hydrocarbon contamination. Selected samples of soil were submitted to a contract lab for analyses.

To assess potential groundwater contamination, a sample of groundwater was collected from each of the borings. Three of the borings were completed as monitoring/sampling wells. Groundwater samples from these wells were collected immediately after completion of the well installation (B-6, -8 and -9). Groundwater samples were submitted to a contract laboratory for analyses.

The following subsections discuss these results and our interpretation of them. Sampling methods are discussed further in Appendix A. Results of the field screening are included on the boring logs (Figures 5a to 5j), and results of the chemical analyses are summarized on Table 4. QA backup data from the contract lab is presently being reviewed and will be submitted separately.

##### 4.1 Hydrocarbon Contamination

Eleven samples of subsurface soil from borings B-1 to B-6 were analyzed for total petroleum hydrocarbons (TPH, modified EPA 418.1). Three of the soil samples were composited from 2 to 3 samples from different depths in boring B-2, -4 and -6. The remaining 8 soil samples were discrete samples. Three criteria were used to select soil samples for TPH analyses:

- \* samples adjacent to the old clusters of USTs were analyzed to assess possible contamination from the old USTs (B-5 and B-1 soil samples);
- \* samples or drill cuttings that showed visible indications of hydrocarbon or where water from the boring (near the sample interval) had an oily sheen or smell were analyzed to quantify the apparent contamination (ash, landfill and dredge fill samples from B-2, B-3, B-4, B-5 and B-6);
- \* samples of alluvium from beneath the fills were analyzed to assess the possible migration of hydrocarbon into the alluvium (B-1, S-1; B-2, S-8 and B-4, S-4)

Results of the TPH analyses of soils are Tabulated on Table 4, and shown on Figure 9.

Ten samples of groundwater (1 from each boring and monitoring / sampling well) were analyzed for TPH (EPA 418.1), and 1 sample of groundwater (from B-3) was analyzed for BTEX (EPA 602), solvents (EPA 601), and "fuel fingerprint". Results of these analyses are tabulated on Table 4, and shown on Figure 9.

Review of the field screening of the samples and the analyses indicates that two types of hydrocarbon contamination are apparently present at the site:

- \* relatively low levels of local hydrocarbons in the landfill debris and incinerator ash, and
- \* diesel fuel floating on the groundwater near boring B-3.

#### 4.1.2 Diesel Contamination near B-3

Boring B-3 is located in United Beverage's truck-parking area, about 40 ft. west of Building B, and 70 ft. south of the north property boundary (Figure 2). Soil in B-3 was visually contaminated with hydrocarbons from a depth of about 20 feet to the bottom of the boring at 26.5 ft. A sample of the fill above the water table contained less than 3 mg/kg TPH.

A groundwater sample collected from B-3 contained 7510 ~~mg/l~~ of total petroleum hydrocarbons. In contrast, total petroleum hydrocarbons in the water samples from 8 of the other 9 borings were below 5 mg/l and that from the ninth boring (B-1) was only 17.1 mg/l (Figure 9), even when low levels of hydrocarbon were present in the soil samples.

Analysis of the sample from B-3 by Coffey Laboratories indicates that the product has the same boiling point as diesel. It also has a chromatogram that is the same as diesel, except that chromatogram peaks for most water-soluble constituents of diesel are missing. According to Dick Reed at Coffey Laboratories, this indicates that the product is "water treated diesel"; that is, diesel that has been in contact with the groundwater for a fairly long time.

The "water treated diesel" in B-3 floated on water in the bailer and the sample jar. A volume of approximately 200 cubic in. of mixed product and water was collected from B-3. We estimate that the free product thickness was less than 1 inch.

No free product was detected in any of the other borings. Additionally, hydrocarbons in the other borings were low (Table 4). Borings B-9, B-10 and B-8 are all within less than 110 ft of B-3 (Figure 2). These observations are consistent with confinement of the free product to a localized area, most likely the

groundwater trough discussed in section 3.3.2.2.

It appears very unlikely to us that the diesel in B-3 resulted from a leak or spill from the United Beer fueling station, or the related USTs. The tanks are almost new, the fueling area is paved, and a spill large enough to reach B-3 should have shown up in the cuttings, soil and groundwater samples from B-1 (which is less than 100 ft. downgradient of the fueling area).

In our opinion, it is also unlikely that the diesel in B-3 leaked from one of the two clusters of USTs that were buried at the site before 1979, prior to Marathon's ownership. One of these clusters of buried tanks was located immediately south of Boring B-1. The other was located immediately east of B-5. The soil and water in the borings next to the tanks (B-1 and B-5) had relatively low levels of hydrocarbons (Table 4 and Figure 9).

In our experience, it would be very unusual for soil right next to leaking buried tanks to be essentially clean. We think it would be particularly unusual in soils like those found in B-1 and B-5 where oil should spread by both capillary tension and floating on the groundwater.

In our opinion, the pattern of the diesel contamination shown by the borings and in the groundwater (Figure 9) is most consistent with either the migration of a spill from off site (downgradient along the groundwater trough near B-3, Figure 7), or a localized surface spill near B-3. Review of the site history and the uses of adjacent sites indicates that either migration from offsite or a localized spill is possible.

According to DEQ and the Fire Marshal's records, several underground fuel tanks are present north and northeast of the site. One of these offsite tanks, or an offsite tank no longer in existence, could have been the source of a spill that followed the groundwater trough onto the site.

As discussed in section 2.2, the site was a truck terminal from the early 1950s until redevelopment in 1979-1980. Operators of the terminal included Pacific Intermountain Express and Tank Division, and System Tanklines (Table 1). Review of airphotos of the terminal indicate that the area near B-3 was used to park truck-trailers while it was a truck terminal. An accidental spill or leak from one or more tank trailers could have caused the contamination observed at B-3.

Regardless of its source, we believe that the diesel contamination observed at B-3 occurred before Marathon purchased the site. This opinion is based on 3 lines of evidence. First is the lack of observed hydrocarbon in soils from borings done near B-3 in 1962 (DM1 B-3 and -4; Appendix B), and the presence of abundant oil observed in the borings done in 1978 (DM2 B-2, -4 and -5; Appendix B) suggest that the spill occurred between 1962 and 1978. Second, the area around B-3 has been paved since early

1980, when the present development was finished. Third, the soil above the groundwater in B-3 does not contain detectable hydrocarbons (Table 4), which leads us to infer that the source was upgradient of B-3.

#### **4.1.3 Localized Hydrocarbons In The Fills**

With the exception of the free product found in B-3, hydrocarbons in the groundwater were below 17.1 mg/l in the groundwater. Soils at the site range from less than 3 mg/kg to 1310 mg/kg TPH. The 3 samples of native soil (Alluvium) from beneath the fills in B-1, B-2 and B-4 had TPH below the limit of detection (3 mg/kg).

Samples of the incinerator ash and landfill debris in B-1, which was located near one cluster of old (pre 1979) USTs had TPH of 157 and 732 mg/kg. Hydrocarbons in B-5 (at the estimated depth of the bottoms of the other cluster of old tanks that were located near B-5) were 17.7 mg/kg. In our experience, these concentrations of TPH are consistent with minor spills during fueling operations in unpaved areas (which was the situation at B-1 and B-5 in 1979, before Marathon bought the site). In our opinion, such low levels probably do not indicate failure of the USTs that were formerly buried near B-1 and B-5. Indeed, these low concentrations are well below levels that we would expect to find in an old municipal landfill such as this site.

Samples from B-2 and B-6 that were observed to have detectable hydrocarbons during the field screening were confirmed by the TPH analyses (Table 4, Figure 9). In both B-2 and B-6 hydrocarbons observed during drilling were localized within the borings. TPH in water samples from these borings were low. The patchy distribution of hydrocarbons and low levels in the water suggest that the hydrocarbons were probably placed with the landfill debris near B-2 and B-6.

#### **4.2 Lead Contamination in Landfill Debris and Incinerator Ash**

Historical records suggest that the incinerator may have begun operations about 1927 and it appears likely that uncontrolled dumping in the area may have begun around the same time, possibly earlier. Based on photographic evidence, dumping continued at least through most of 1940, as discussed in Section 2.2 (Figure 6).

Incinerator ash was described and its general distribution indicated in section 3.2.3. Physical characteristics of the landfill debris as well as its relationship with the incinerator ash were discussed in section 3.2.4.

#### 4.2.1 Potential for Soil Contamination

Potential metals soil contamination in the incinerator ash and landfill debris was assessed by analysis of 14 subsurface samples of soil for total cadmium, chromium, lead, mercury and manganese. Mercury was analyzed by EPA 245.1. The other metals were analyzed by EPA 200.7. Five composited and 6 discrete samples of incinerator ash and/or ash mixed with landfill debris were analyzed from Borings B-1 to B-6. Potential migration of metals into the underlying alluvium was assessed by analysis of three discrete Samples of alluvium (B-1, B-2 and B-4).

To assess the potential availability of the metals to the environment, 4 composite samples were tested for EP toxicity. Chemical analyses of metals for the site soil samples are presented on Table 4.

The most obvious results indicated by the metal analyses are the high lead values for many of the samples. As noted on Table 4 these are generally representative of both incinerator ash and landfill debris.

Given the limited amount of data, no clear distinction can be made between the ash and the debris on the basis of total lead values. The EP Toxicity tests suggest that the landfill debris and mixtures of incinerator ash and landfill debris have less environmentally available lead than the pure ash (B-1 with 0.092 mg/kg, B-2 with 3.13 mg/kg, and B-3 with lead values below the limit of detection).

The maximum EP Toxicity value for lead in the incinerator ash is 11.8 mg/kg in B-5. As with the sample from B-2, the EP Toxicity sample from B-5 was a composite, in this instance of four samples (2, 3, 4 & 5). Only the top 2 samples were "pure" ash, however the lower two samples had a considerable quantity of ash, so we believe there has been little dilution of the leachable lead for the EP Toxicity analysis. The EP Toxicity result in B-5 is over twice the concentration required to classify a soil as hazardous waste (5 mg/kg; 44 CFR Part 233).

However, municipal wastes are exempt from regulation under the Resource Conservation and Recovery Act (RCRA). Because the ash was produced by incineration of municipal waste by the City of Portland, it should be exempt from RCRA regulation, unless the lead (or other metals) are released to the environment.

#### 4.2.2 Potential for Groundwater Contamination

Potential groundwater contamination from the ash and landfill debris was assessed by analyses of 5 samples of groundwater for dissolved cadmium, chromium, lead, mercury and manganese, and 5 additional samples of groundwater for dissolved lead (Table 4) Figure 10 shows the distribution of the analyses

of lead in soil and groundwater.

The analyses of groundwater from 6 of the 9 borings where dissolved lead was analyzed indicate lead concentrations of less than 0.001 mg/l (Table 4). Borings B-3 and -9 had 0.003 mg/l lead in the groundwater, well below the EPA maximum concentration limit (MCL) of 0.05 mg/l. However, 2 analyses of the groundwater in B-5, the boring located in the most concentrated area of incinerator ash, indicated concentrations of 1.16 mg/l and 1.52 mg/l dissolved lead.

More than one interpretation of the lead and EP Toxicity data are possible. First, the lead measured in the groundwater in B-5 may include fine particulate lead or lead compounds. The samples were filtered with a .45 micron filter prior to analysis. In our experience, incinerator ash can contain a few percent of ash particles smaller than .45 microns.

Second, the high EP Toxicity and dissolved lead could be from an isolated "pocket" of particularly leachable lead, such as a few old car batteries, in the landfill debris. While such an explanation is possible, in our opinion it is more likely that the ash is the source of the dissolved lead.

The pH measurements of groundwater (Figure 5 and Table 4) at the site are all between 6.0 and 9.3 (+/- .25). The values measured show no consistent pattern, except that the two highest values (8.0 and 9.3) are from the groundwater in the 2 borings with the highest percentage of incinerator ash (B-5 and B-1). The boring with the highest concentration of incinerator ash (B-5) also had the most leachable lead, and was the only boring with a concentration of dissolved lead above the MCL. Thus the available data suggest that water with the highest pH and the highest lead is found where the EP Toxicity results indicate the most leachable source of lead is present.

The only groundwater samples other than B-5 that had detectable dissolved lead were from B-3, and B-9, both with 0.003 mg/l. As shown on Figures 7 and 10, these borings are the closest downgradient samples to the buried incinerator ash (Figure 6). These data suggest the following conceptual model. Groundwater flowing through the ash from (west to east) comes into equilibrium with the alkaline ash. At least locally, the pH is raised enough to dissolve lead hydroxides present in the ash. As the groundwater moves east, out of the ash it is buffered back to a lower pH, and lead hydroxide is precipitated.



## 5.0 CONCLUSIONS

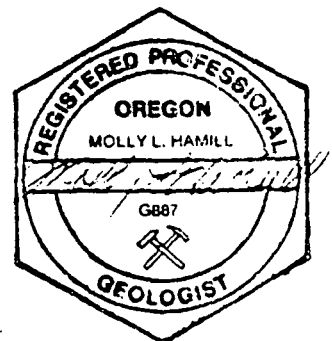
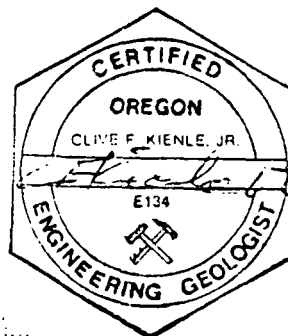
There appear to be 4 areas of potential contamination of concern at the site. These are, in estimated order of increasing importance: buried landfill debris, a localized diesel spill, buried incinerator ash, and possible groundwater contamination by leaching of lead from the ash.

The first area of potential contamination of concern is the landfill debris, including the mixed areas of debris and ash. The debris has localized "pockets" of hydrocarbon contamination, and, locally has leachable lead.

The second, and most obvious area is the localized occurrence of diesel floating on the groundwater near boring B-3. The spill appears to be of limited extent, but is probably of sufficient volume to be a "reportable spill".

The third area of potential contamination is the incinerator ash. The limited metals and EP Toxicity data indicate that the ash may be classified as a hazardous waste because of its high lead concentration and the potential availability of the lead to the environment. The landfill debris is exempt, so we believe that the case can be made that the ash produced by burning the exempt waste cannot be classified as hazardous waste.

The fourth area of concern is the potential for lead-contaminated groundwater. Although only a few data are available, the analyses of groundwater from B-5 suggest that the groundwater in the incinerator ash has a lead concentration in excess of the MCL for drinking water. The very low level of lead in the nearest downgradient borings (B-3 and B-9) and lack of detectable lead in the other groundwater samples also suggest that dissolved lead is precipitating out of the water before it reaches areas down-gradient of the ash.



*James E. Ryan*  
C. F. Kienle, Jr. Registered Professional Geologist 113360

CHECKED BY \_\_\_\_\_  
DATE \_\_\_\_\_



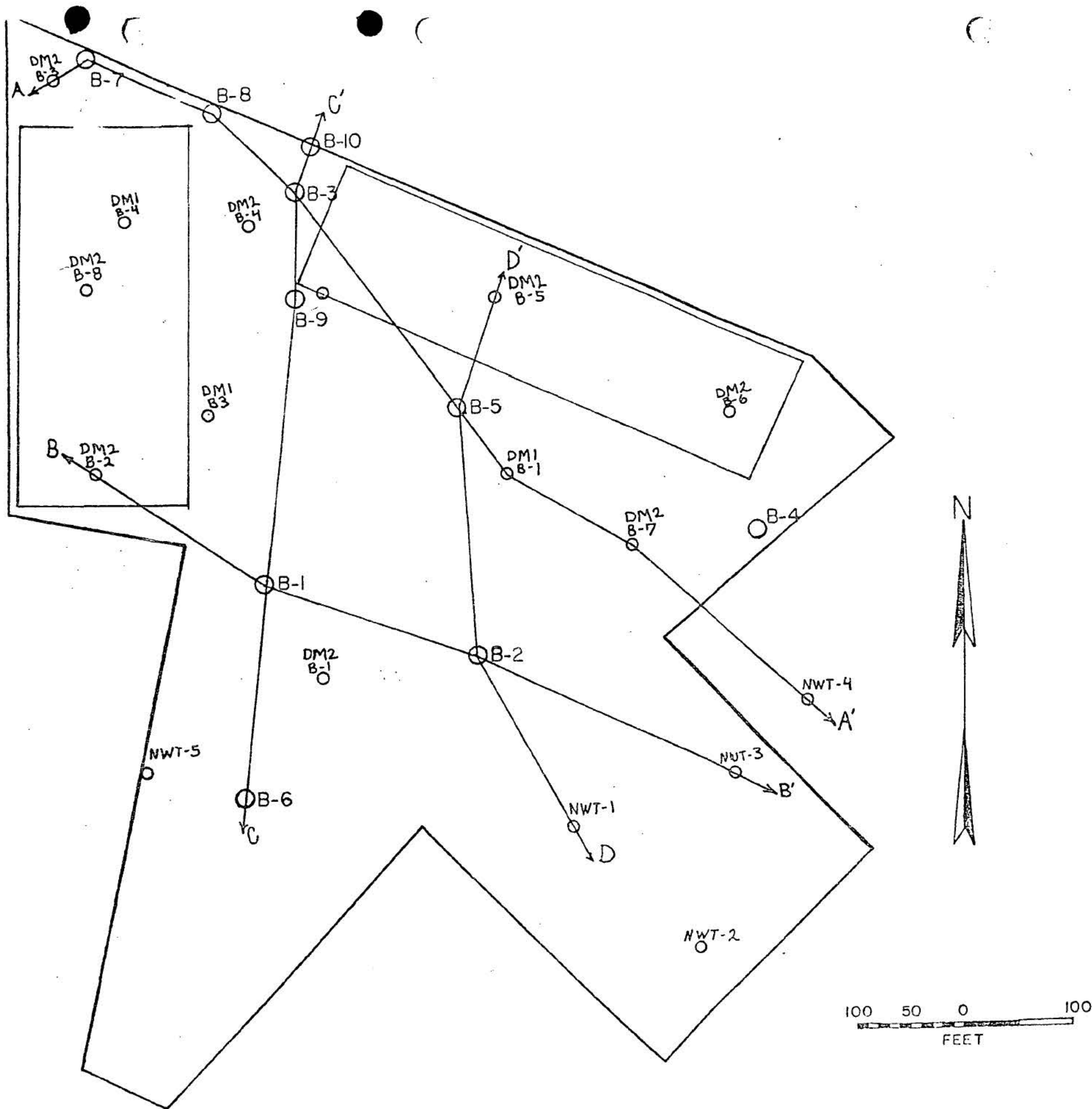
\* Water levels in B-1 and B-2 did not stabilize and are not representative of water levels in the fill.



FIG.

BY \_\_\_\_\_ DATE \_\_\_\_\_  
 BY \_\_\_\_\_ DATE \_\_\_\_\_

CHECKED BY \_\_\_\_\_



GUILDS LAKE PHASE 2

BORING AND CROSS  
SECTION LOCATIONS

NORTHWEST GEOLOGICAL  
SERVICES, INC.

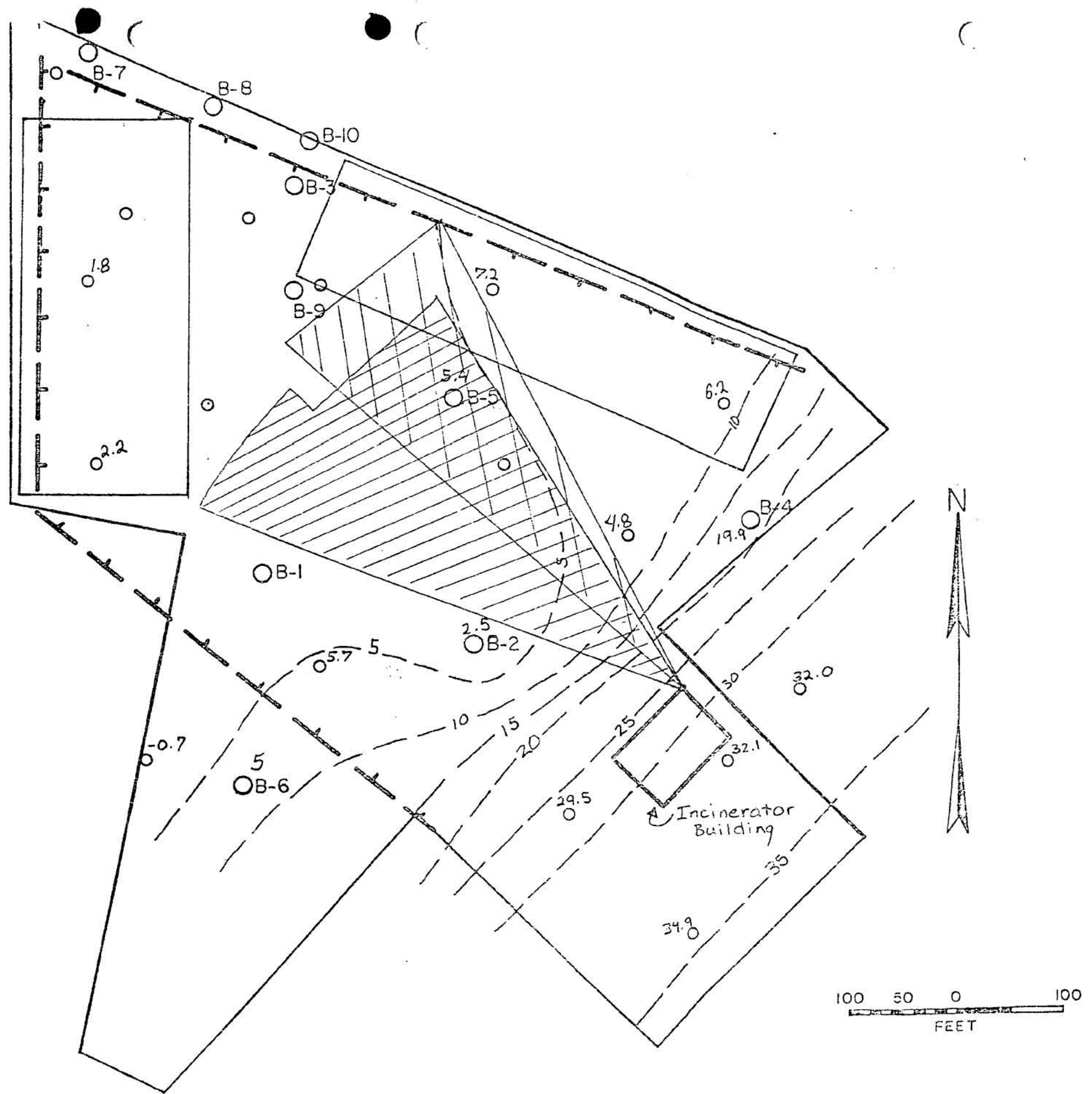
III.3-2

FIG. 2



REVISIONS  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 BY \_\_\_\_\_ DATE \_\_\_\_\_

CHECKED BY \_\_\_\_\_



- Incinerator Ash 1940
- Incinerator Ash 1936
- Lake bottom elevations
- Elevation of lake bottom
- Dike location ~ 1936

GUILDS LAKE PHASE 2	
LOCATION OF BURIED DIKES, INCINERATOR ASH, AND GUILDS LAKE BOTTOM	
111.3-2	
NORTHWEST GEOLOGICAL SERVICES, INC.	FIG. 6

ATTACHMENT 9



**GE Industry  
Sales & Services**

General Electric Company  
2535 NW 28th Avenue, Portland, OR 97210

February 9, 1989

Mr. Marvin Nudleman  
S.J. Nudleman & Son  
2707 N.W. Nela St.  
Portland, OR 97210

SUBJECT: Transformer oil sample test results.

Mr. Nudleman,

Attached please find the test results of oil taken from  
your transformer.

Sincerely,

Fred W. Johnson  
PCB Specialist - N W Area





# COFFEY LABORATORIES, INC.

4914 N.E. 122nd Ave.

Portland, OR 97230

Phone: (503) 254-1794

February 1, 1989  
Log #H890127-M  
P.O.#21649

General Electric Company  
PCB Facility  
2535 NW 28th  
Portland, OR 97210  
Attention: Fred Johnson

Samples Received: 01/27/89

Analysis Requested: Polychlorinated Biphenyls

SAMPLE ID	PCB (mg/kg)	AROCOR
21649	124	1260

Detection Limit: 1 mg/kg

Analysis Date: 01/30/89

Analyzed by capillary GC/ECD and comparison with standard solutions.

Sincerely,

Victor A. Perry,  
Quality Assurance

Sincerely,

Susan M. Coffey,  
President

SMC/lws

This report is for the sole and exclusive use of the client. Samples are retained a maximum of 15 days from the report date, or until the maximum holding time expires.

C.C. - file  
Fred Johnson

ATTACHMENT 10



# GE Industry Sales & Services

## Quotation for Services

GEISS Form 487(Q)

(503) 221-5092

101-89-049

QUOTATION NO.

February 8, 1989

DATE

NOTICE: This quotation is void unless accepted within 30 days from date hereof and is subject to change upon notice. However, if GE elects to perform the services covered by the quotation in response to an order placed 30 or more days after the date of the quotation, the terms of the quotation will apply.

To Mr. Marvin NudlemanAddress S.J. Nudleman & Son Scrap Metal2707 N W Nela St.Portland, OR 97229

## Type of Service

- ☐ Complete Installation/Maintenance/Construction  
☐ Field Engineering Service  
☐ Job Management Service  
☐ Training Service  
☐ Engineering Study/Inspection/Test  
☒ PCB Service

Work Description, Completion, Price - GE Industry Sales &amp; Services (GE) agrees as follows:

GE Industry Sales and Services is pleased to offer the following proposal for removal and disposal of the PCB item(s) located at: 2707 N W Nela St - Portland, OR 97210.

GE will remove the PCB material described in Paragraph 4.0, Existing Equipment, and dispose of it in a manner fully compliant with all applicable EPA or other regulations.

Please review this offering as a complete solution to your disposal needs, keeping in mind that it is extremely important to owners of PCB materials for the PCB services contractor to provide meaningful indemnification against future liability. Such indemnification is only as valid as the financial resources of the offerer.

This Quotation is for a contract to be performed by GE Industry Sales and Services and is subject to the Conditions of Sale, GEISS Form 487(CS), attached.

GENERAL ELECTRIC COMPANY (GE)

By

Fred W. Johnson

Fred W. Johnson

Title

PCB Specialist

Address

2535 N.W. 28th Ave

Portland, OR 97229

## 1. WORK SCOPE

Provide job management, labor, tools, materials, and equipment to dispose of (1) PCB Contaminated transformer by draining it in a decommissioning facility, and properly disposing of liquid and solids.

- 1.1. Servicing of transformer(s) at the PCB facility in accordance with Federal EPA regulations to include draining into approved drums.
- 1.2. Transportation of transformer(s) (empty) to an EPA licensed chemical waste landfill.
- 1.3. Disposal services for the transformer(s) and solid waste material at the EPA licensed chemical waste landfill.
- 1.4. Transportation of original PCB liquids to an EPA licensed destruction facility.
- 1.5. Disposal services for the original PCB liquids in the EPA licensed destruction facility.
- 1.6. Technical services to assist CUSTOMER in obtaining all required permits and preparing manifests for legal disposal of PCB liquids and solids.
- 1.7. Written confirmation of delivery of solid PCB material to an EPA licensed chemical waste landfill.
- 1.8. Written confirmation of delivery of liquid PCB material to an EPA licensed destruction facility.

## 2. WORK PERIOD

- 2.1. All work is to be performed during normal straight time working hours, 7:00 am to 3:30 pm, Monday through Friday, exclusive of holidays observed by GE. If the Customer requires work to be performed on an overtime basis, the premium portion of such overtime work, and other applicable costs such as travel and living expense, will be billable to the Customer in addition to the lump sum prices quoted elsewhere in this proposal. Billing for overtime work will be at the appropriate published hourly or daily rates in effect at the time such work is performed.

ATTACHMENT 11

Fifteen Year Average Precipitation Patterns as Revealed by the  
Portland, Oregon Mesoscale Precipitation Network

by

J. William Wantz

Charles M. Feris

Bonneville Power Administration

Portland, Oregon 97208

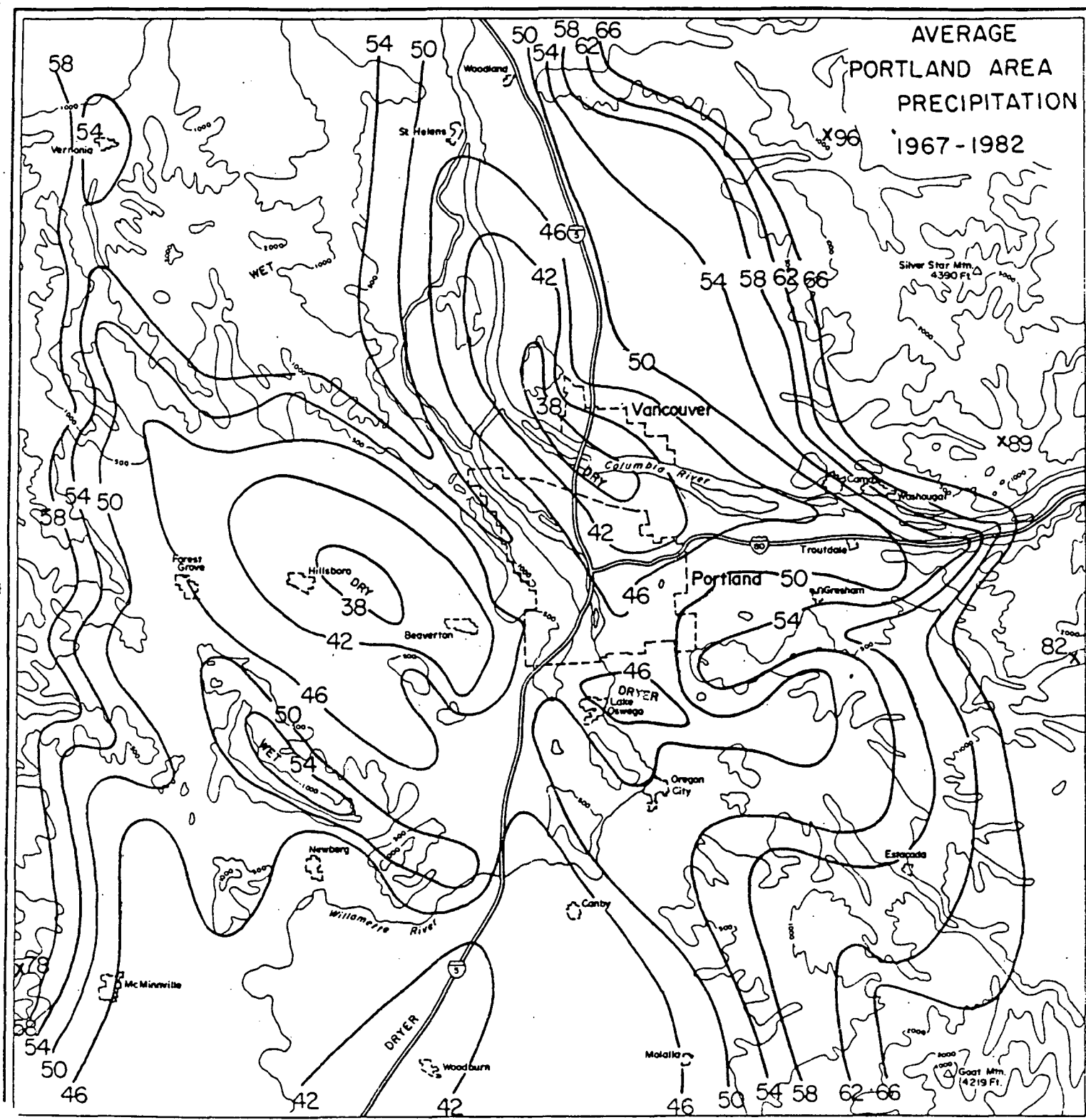
and

Nancy S. Larsen

National Weather Service

Portland, Oregon

August 15, 1983



BONNEVILLE POWER ADMINISTRATION  
WEATHER OFFICE

Figure 2 Fifteen year (1968-1982) average annual precipitation, in inches, for the Portland, Oregon, Mesoscale Precipitation Network. Relatively wetter and drier areas are marked. Due to insufficient data, detailed analysis was not done in rugged terrain of the Coast and Cascade Mountains.



ATTACHMENT 12

NOTICE TO WATER WELL CONTRACTOR  
The original and first copy  
of this report are to be  
filed with the  
STATE ENGINEER, SALEM 10, OREGON  
within 30 days from the date  
of well completion.

OCT 24 1962  
STATE OF OREGON  
WATER WELL REPORT  
(Please type or print)

State Well No. 1N/1-29  
State Permit No. \_\_\_\_\_

(1) OWNER:

Name HERCULES POWDER CO  
Address 3366 NW YEON AVE  
PORTLAND ORE

(2) LOCATION OF WELL:

County MULT. Driller's well number 4133  
1/4 Section 29 T. 1N R. 1E W.M.  
Bearing and distance from section or subdivision corner

(3) TYPE OF WORK (check):

New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐  
Abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):

Domestic ☐ Industrial ☒ Municipal ☐  
Irrigation ☐ Test Well ☐ Other ☐

(5) TYPE OF WELL:

Rotary ☐ Driven ☐  
Cable ☒ Jetted ☐  
Dug ☐ Bored ☐

(6) CASING INSTALLED:

Threaded ☐ Welded ☐  
12" Diam. from 0 ft. to 243 ft. Gage 330  
" Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Gage \_\_\_\_\_  
" Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Gage \_\_\_\_\_

(7) PERFORATIONS:

Perforated? ☐ Yes ☒ No

Type of perforator used

Size of perforations	in. by	in.
perforations from _____ ft. to _____ ft.		
perforations from _____ ft. to _____ ft.		
perforations from _____ ft. to _____ ft.		
perforations from _____ ft. to _____ ft.		
perforations from _____ ft. to _____ ft.		

(8) SCREENS:

Well screen installed ☐ Yes ☐ No

Manufacturer's Name \_\_\_\_\_ Model No. \_\_\_\_\_  
Slot size \_\_\_\_\_ Set from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
Diam. \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

(9) CONSTRUCTION:

Well seal—Material used in seal CEMENT GROUT  
Depth of seal 31 ft. Was a packer used? NO  
Diameter of well bore to bottom of seal 16 in.  
Were any loose strata cemented off? ☐ Yes ☐ No Depth \_\_\_\_\_  
Was a drive shoe used? ☐ Yes ☐ No  
Was well gravel packed? ☐ Yes ☐ No Size of gravel: \_\_\_\_\_  
Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
Did any strata contain unusable water? ☐ Yes ☒ No  
Type of water? \_\_\_\_\_ Depth of strata \_\_\_\_\_  
Method of sealing strata off \_\_\_\_\_

(10) WATER LEVELS:

Static level 30 ft. below land surface Date 10/13/62  
Artesian pressure \_\_\_\_\_ lbs. per square inch Date \_\_\_\_\_

(11) WELL TESTS:

Drawdown is amount water level is lowered below static level

Was a pump test made? ☐ Yes ☐ No If yes, by whom?

Yield:	gal./min. with	ft. drawdown after	hrs.
<u>315</u>	<u>275</u>	<u>11</u>	<u>11</u>
<u>275</u>	<u>254</u>	<u>1/2</u>	<u>"</u>
<u>225</u>	<u>203</u>	<u>1/2</u>	<u>"</u>

Ballor test gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.

Artesian flow g.p.m. Date \_\_\_\_\_

Temperature of water \_\_\_\_\_ Was a chemical analysis made? ☒ Yes ☐ No

(12) WELL LOG:

Diameter of well below casing \_\_\_\_\_

Depth drilled \_\_\_\_\_ ft. Depth of completed well \_\_\_\_\_ ft.

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
SAND AND GRAVEL FILL	0	27
DARK GREY SILT	27	106
CLAY, GREEN AND BROWN	106	137
SAND, GRAVEL AND CLAY	137	201
SAND AND GRAVEL	201	207
CONGLOMERATE	207	243
MED. HARD BASALT	243	262
JOET BROWN ROCK	262	271
MED. HARD GREY BASALT	271	295
HARD GREY BASALT SOME SEAMS	295	330
POROUS GREY ROCK	330	368
HARD GREY BASALT	368	372
MED. HARD GREY BASALT	372	393
MED. HARD BROWN	393	409
HARD GREY BASALT	409	413
POROUS BLACK ROCK	413	487
MED. HARD GREY	487	496
HARD GREY BASALT	496	519
MED. JOET POROUS BLACK ROCK	519	556
HARD BLACK ROCK	556	574

Work started 7/2 1962 Completed 10/16 1962

Date well drilling machine moved off of well 10/17 1962

(13) PUMP:

Manufacturer's Name \_\_\_\_\_  
Type: \_\_\_\_\_ H.P. \_\_\_\_\_

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME RJ. STRASSER DRILLING CO  
(Person, firm or corporation) (Type or print)

Address 8110 SE SUNSET AVE PORTLAND

Drilling Machine Operator's License No. GLENN KIDMAN

[Signed] Robert L. Strasser  
(Water Well Contractor)

Contractor's License No. 10 Date OCT 22, 1962

## NOTICE TO WATER WELL CONTRACTOR

The original and first copy  
of this report are to be  
filed with the

STATE ENGINEER, SALEM 10, OREGON  
within 30 days from the date  
of well completion.

## WATER WELL REPORT

STATE OF OREGON  
(Please type or print)

State Well No. 1N/1-29 C

State Permit No. \_\_\_\_\_

## (1) OWNER:

Name HERCULES POWDER CO  
Address 3366 N.W. YEON AVE.  
PORTLAND, ORE.

## (2) LOCATION OF WELL:

County MULT. Driller's well number 4148  
1/4 1/4 Section T. R. W.M.  
Bearing and distance from section or subdivision corner

## (3) TYPE OF WORK (check):

New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐  
Abandonment, describe material and procedure in Item 12.

## (4) PROPOSED USE (check):

Domestic ☐ Industrial ☒ Municipal ☐  
Irrigation ☐ Test Well ☐ Other ☐

## (5) TYPE OF WELL:

Rotary ☐ Driven ☐  
Cable ☒ Jetted ☐  
Dug ☐ Bored ☐

## (6) CASING INSTALLED:

Threaded ☐ Welded ☒  
12" Diam. from 0 ft. to 195 ft. Gage 330  
" Diam. from ft. to ft. Gage  
" Diam. from ft. to ft. Gage

## (7) PERFORATIONS:

Perforated? ☐ Yes ☒ No

Type of perforator used

Size of perforations	in. by	in.
perforations from	ft. to	ft.
perforations from	ft. to	ft.
perforations from	ft. to	ft.
perforations from	ft. to	ft.
perforations from	ft. to	ft.

## (8) SCREENS:

Well screen installed ☐ Yes ☒ No

Manufacturer's Name

Model No.

Slot size Set from ft. to ft.

Diam. Slot size Set from ft. to ft.

## (9) CONSTRUCTION:

Well seal—Material used in seal CEMENT GROUT  
Depth of seal 50 ft. Was a packer used? NO  
Diameter of well bore to bottom of seal 16 in.  
Were any loose strata cemented off? ☐ Yes ☒ No Depth  
Was a drive shoe used? ☒ Yes ☐ No  
Was well gravel packed? ☐ Yes ☒ No Size of gravel:  
Gravel placed from ft. to ft.

Did any strata contain unusable water? ☐ Yes ☒ No

Type of water? Depth of strata

Method of sealing strata off

## (10) WATER LEVELS:

Static level 32 ft. below land surface Date MAY 13/1963  
Artesian pressure lbs. per square inch Date

## (11) WELL TESTS:

Drawdown is amount water level is lowered below static level

Was a pump test made? ☒ Yes ☐ No If yes, by whom? R.J. STRASSERYield: 365 gal./min. with 190 ft. drawdown after 12 hrs.

" " " "

" " " "

Baller test gal./min. with ft. drawdown after hrs.

Artesian flow g.p.m. Date

Temperature of water 57 Was a chemical analysis made? ☒ Yes ☐ No

## (12) WELL LOG:

Diameter of well below casing

Depth drilled ft. Depth of completed well ft.

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
BROWN FINE SAND	0	28
DARK GREY SILT	28	49
GRANULAR CLAY BINDER	49	96
GREY SILT	96	104
SAND, GRAVEL, AND CLAY	104	195
MEDIUM HARD BASALT	195	208
HARD GREY BASALT	208	234
BROWN BASALT	234	245
BLACK BASALT	245	252
HARD GREY BASALT	252	295
BLACK BASALT	295	319
HARD GREY BASALT	319	324
BLACK BASALT	324	364
HARD GREY BASALT	364	407
BLACK BASALT, CLAY, SAND	407	411
HARD GREY BASALT	411	420
MEDIUM SOFT BLACK BASALT	420	455
HARD GREY BASALT	455	509
BLACK ROCK AND CLAY	509	521
MEDIUM HARD BLACK BASALT	521	534
HARD GREY BASALT	534	594
BLACK SHALE AND ROCK	594	608
MEDIUM HARD BLACK BASALT	608	647
HARD GREY BASALT	647	679

Work started OCT 30 1962 Completed MAY 16 1963Date well drilling machine moved off of well MAY 16 1963

## (13) PUMP:

Manufacturer's Name LAYNE AND BOWLERType: DEEP WELL TURBINE H.P.

## Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME R.J. STRASSER DRILLING CO  
(Person, firm or corporation) (Type or print)

Address 8110 SE SUNSET LANE PORTLAND, OR

Drilling Machine Operator's License No.

[Signed] Robert L. Strasser  
(Water Well Contractor)Contractor's License No. 10 Date MAY 21, 1963

STATE ENGINEER  
Salem, Oregon

# Well Record

STATE WELL NO. 11-11-11  
COUNTY Washington  
APPLICATION NO. GR-343

OWNER: City of Beaverton - by R.D. Malsey

MAILING ADDRESS: City Hall

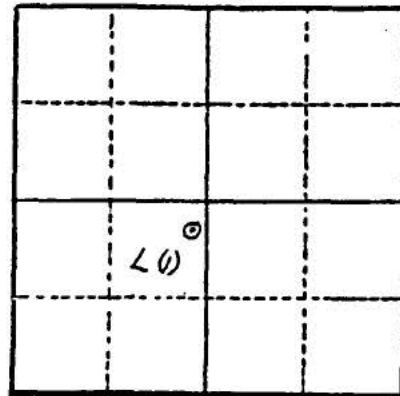
LOCATION OF WELL: Owner's No. #1

CITY AND STATE: Beaverton, Oregon

NE 1/4 SW 1/4 Sec. 11 T. 1 S. R. 1 W., W.M.

Bearing and distance from section or subdivision

corner 2550 feet east and 220 feet south  
from W 1/4 corner of section 11.



Section 11

Altitude at well 360 feet Interpolated

TYPE OF WELL: Drilled Date Constructed 1932

Depth drilled 825 Depth cased 609.9

## CASING RECORD:

10 inch casing set from 0 to 215.4 feet.  
8 inch " " " 215.4 to 609.9 feet.

## FINISH:

unknown

## AQUIFERS:

rock - 650 to 735 feet ?

## WATER LEVEL:

180 feet below land surface. 1932

PUMPING EQUIPMENT: Type Parsona Deep Well Turbine

H.P. 40

Capacity 500 G.P.M.

## WELL TESTS:

Drawdown 40 ft. after \_\_\_\_\_ hours pumping? G.P.M.

Drawdown \_\_\_\_\_ ft. after \_\_\_\_\_ hours \_\_\_\_\_ G.P.M.

USE OF WATER Beaverton Municipal 4000 Temp. \_\_\_\_\_ °F., 19\_\_\_\_

SOURCE OF INFORMATION Reg. Statement GR-343

DRILLER or DIGGER \_\_\_\_\_

## ADDITIONAL DATA:

Log yes Water Level Measurements \_\_\_\_\_ Chemical Analysis \_\_\_\_\_ Aquifer Test \_\_\_\_\_

## REMARKS:



State Permit No. \_\_\_\_\_

(USE ADDITIONAL SHEETS IF NECESSARY)





State Permit No.

SP-4538-119

## NOTICE TO WATER WELL CONTRACTOR

The original and first copy  
of this report are to be  
filed with the

STATE ENGINEER, SALEM, OREGON 97310  
within 30 days from the date  
of well completion.

## WATER WELL REPORT

STATE OF OREGON  
(Please type or print)

State Well No. 1N/1W-12N

State Permit No. \_\_\_\_\_

## (1) OWNER:

Name Portland Gas & Coke Company

Address \_\_\_\_\_

## (2) LOCATION OF WELL:

County Multnomah Driller's well number \_\_\_\_\_SW 1/4 SW 1/4 Section 12 T. 1N R. 1W W.M.

Bearing and distance from section or subdivision corner \_\_\_\_\_

## (3) TYPE OF WORK (check):

w Well ☐ Deepening ☐ Reconditioning ☐ Abandon ☐

If abandonment, describe material and procedure in Item 12.

## (4) PROPOSED USE (check):

Domestic ☐ Industrial ☐ Municipal ☒Irrigation ☐ Test Well ☐ Other ☐

## (5) TYPE OF WELL:

Rotary ☐ Driven ☐Cable ☐ Jetted ☐Dug ☐ Bored ☐

## (6) CASING INSTALLED:

Threaded ☐ Welded ☐12 " Diam. from 0 ft. to 63 ft. Gage \_\_\_\_\_8 " Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Gage \_\_\_\_\_

" Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Gage \_\_\_\_\_

## (7) PERFORATIONS:

Perforated? ☐ Yes ☐ No

Type of perforator used \_\_\_\_\_

Size of perforations \_\_\_\_\_ in. by \_\_\_\_\_ in.

\_\_\_\_\_ perforations from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

\_\_\_\_\_ perforations from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

\_\_\_\_\_ perforations from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

\_\_\_\_\_ perforations from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

\_\_\_\_\_ perforations from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

## (8) SCREENS:

Well screen installed? ☐ Yes ☐ No

Manufacturer's Name \_\_\_\_\_

\_\_\_\_\_ Model No. \_\_\_\_\_

Diam. \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Diam. \_\_\_\_\_ Slot size \_\_\_\_\_ Set from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

## (9) CONSTRUCTION:

Well seal—Material used in seal \_\_\_\_\_

Depth of seal \_\_\_\_\_ ft. Was a packer used? ☐

Diameter of well bore to bottom of seal \_\_\_\_\_ in.

Were any loose strata cemented off? ☐ Yes ☐ No Depth \_\_\_\_\_Was a drive shoe used? ☐ Yes ☐ NoWas well gravel packed? ☐ Yes ☐ No Size of gravel: \_\_\_\_\_

Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

Did any strata contain unusable water? ☐ Yes ☐ No

Type of water? \_\_\_\_\_ depth of strata \_\_\_\_\_

Method of sealing strata off \_\_\_\_\_

## (10) WATER LEVELS:

Static level 48 ft. below land surface Date 1954

Artesian pressure \_\_\_\_\_ lbs. per square inch Date \_\_\_\_\_

## (11) WELL TESTS:

Drawdown is amount water level  
lowered below static levelWas a pump test made? ☐ Yes ☐ No If yes, by whom? \_\_\_\_\_Yield: 140 gal./min. with \_\_\_\_\_ ft. drawdown after" 150 " with drawdown to 200 "

" " " " " "

Bailer test \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after

Artesian flow \_\_\_\_\_ g.p.m. Date \_\_\_\_\_

Temperature of water \_\_\_\_\_ Was a chemical analysis made? ☐ Yes

## (12) WELL LOG:

Diameter of well below casing \_\_\_\_\_

Depth drilled \_\_\_\_\_ ft. Depth of completed well 382Formation: Describe by color, character, size of material and structure  
show thickness of aquifers and the kind and nature of the material  
stratum penetrated, with at least one entry for each change of formation

MATERIAL	FROM
Sand	0
Rock (basalt)	61
Sand and broken rock	241
Sand	246
Basalt, broken, soft	258

Data from USGS

Work started \_\_\_\_\_ 19 \_\_\_\_\_ Completed \_\_\_\_\_

Date well drilling machine moved off of well \_\_\_\_\_

## (13) PUMP:

Manufacturer's Name \_\_\_\_\_

Type: \_\_\_\_\_ H.P. \_\_\_\_\_

## Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report  
true to the best of my knowledge and belief.NAME A. M. Jannsen  
(Person, firm or corporation) (Type or print)

Address \_\_\_\_\_

Drilling Machine Operator's License No. \_\_\_\_\_

[Signed] \_\_\_\_\_ (Water Well Contractor)

Contractor's License No. \_\_\_\_\_ Date \_\_\_\_\_



STATE ENGINEER  
Salem, Oregon

# Well Record

STATE WELL NO. 1N/1-28R1  
COUNTY Multnomah  
APPLICATION NO.

OWNER: Commission of Public Docks

MAILING

ADDRESS: 1884 N. W. Front Avenue

LOCATION OF WELL: Owner's No.

CITY AND

STATE: Portland, Oregon

SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  Sec. 28 T. 1 N. S. R. 1 E. W. W.M.

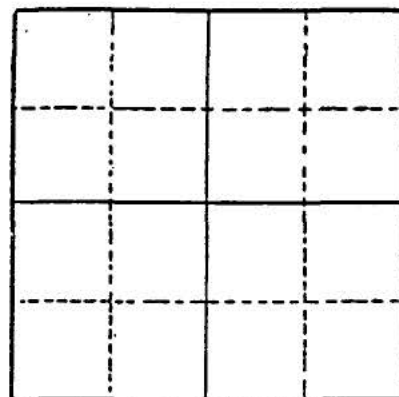
Bearing and distance from section or subdivision

corner

Altitude at well

TYPE OF WELL: Drilled Date Constructed July '41

Depth drilled 142 Depth cased



Section

CASING RECORD:

8 inch steel casing

FINISH:

AQUIFERS:

WATER LEVEL:

PUMPING EQUIPMENT: Type Turbine H.P. 5  
Capacity 100 G.P.M.

WELL TESTS:

Drawdown ft. after hours G.P.M.

Drawdown ft. after hours G.P.M.

USE OF WATER Air conditioning Temp. 58 °F. 19

SOURCE OF INFORMATION Mr. Monahan Public Works Dept

DRILLER or DIGGER

ADDITIONAL DATA:

Log Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

STATE ENGINEER  
Salem, Oregon

# Well Record

STATE WELL NO. 1N/1-2  
COUNTY Multnomah  
APPLICATION NO.

OWNER: Portland Ice & Cold Storage

MAILING

ADDRESS: 1810 N. W. 18th

LOCATION OF WELL: Owner's No.

CITY AND

STATE: Portland, Oregon

1/4 1/4 Sec. T. N. S., R. E. W., W.M.

Bearing and distance from section or subdivision  
corner

Altitude at well

TYPE OF WELL: Drilled Date Constructed

Depth drilled Depth cased

CASING RECORD:


Section

FINISH:

AQUIFERS:

WATER LEVEL:

PUMPING EQUIPMENT: Type Turbine H.P.  
Capacity 150 G.P.M.

WELL TESTS:

Drawdown ft. after hours

Drawdown ft. after hours

USE OF WATER Industrial Ammonia Condensers Temp. °F.  
SOURCE OF INFORMATION Mr. Monahan Public Works Dept.

DRILLER or DIGGER

ADDITIONAL DATA:

Log Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

STATE ENGINEER  
Salem, Oregon

# Well Record

STATE WELL NO. 1N/1-28Q1  
COUNTY Multnomah  
APPLICATION NO.

OWNER: Blitz Weinhardt Co. MAILING ADDRESS: 1991 N. W. Upshur

LOCATION OF WELL: Owner's No. CITY AND STATE: Portland, Oregon

..... 1/4 ..... 1/4 Sec. ..... T. ..... N. E.  
S., R. ..... W., W.M.

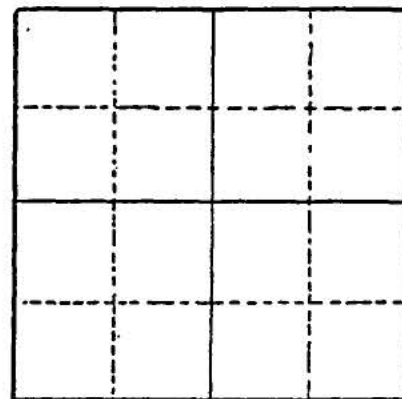
Bearing and distance from section or subdivision  
corner .....

Altitude at well .....

TYPE OF WELL: ..... Date Constructed .....

Depth drilled ..... 50 ..... Depth cased .....

CASING RECORD:



Section .....

FINISH:

AQUIFERS:

WATER LEVEL:

PUMPING EQUIPMENT: Type Deming-Mueller H.P. 1 1/2  
Capacity 40 G.P.M.

WELL TESTS:

Drawdown ..... ft. after ..... hours ..... G.P.M.

Drawdown ..... ft. after ..... hours ..... G.P.M.

USE OF WATER Industrial cooling condenser Temp. °F. ...., 19

SOURCE OF INFORMATION Mr. Monahan, Portland Public Works Dept.

DRILLER or DIGGER .....

ADDITIONAL DATA:

Log ..... Water Level Measurements ..... Chemical Analysis ..... Aquifer Test .....

REMARKS:

STATE ENGINEER  
Salem, Oregon

te Well No. 1N/1-28 M.1.

County Multnomah

Application No. ....

## Chemical Analysis

OWNER Griffith Rubber Mills OWNER'S NO. ....

ANALYST Flox Company Address 2439 NW. 22nd Ave.

Date of Collection 9/10/46

Point of Collection well

	P.P.M.	E.P.M.	G.P.G.
Silica (SiO <sub>2</sub> )	50		2.95
Iron (Fe) Total			
Manganese (Mn)	9		0.5
Calcium (Ca)			
Magnesium (Mg)			
Sodium (Na)			
Potassium (K)			
Bicarbonate (HCO <sub>3</sub> )			
Carbonate (CO <sub>3</sub> )			
Sulfate (SO <sub>4</sub> )	44		2.6
Chloride (Cl) <u>NaCl</u>	286		15.8
Fluoride (F)			
Nitrate (NO <sub>3</sub> )			
Boron (B)			
Dissolved Solids	496		29.0
Hardness as CaCO <sub>3</sub>	67		3.9
Specific Conductance (Micromhos at 25°C)			
pH	7.9 well (7.1 city water)		
Percent Sodium			
Sodium Absorption Ratio (S.A.R.)			
CLASS			

State Well No. 1N/1-28M(1)  
County Multnomah  
Application No. \_\_\_\_\_

Owner: Griffith Rubber Mills Owner's No.                     

Driller: A. M. Jannsen Date Drilled August 1946

CHARACTER OF MATERIAL	(Feet below land surface)		Thickness (feet)
	From	To	
Rock, sandy	0	22	22
Gravel, big	22	32	10
Gravel	32	45	13
Sand and gravel	45	65	20
Gravel	65	94	29
Gravel, muddy	94	111	17
Gravel	111	120	9
Gravel, loose	120	141	21
Gravel, cement	141	143	2
Gravel, loose	143	165	22
Sand and gravel	165	185	20
Sand	185	195	10
Sand-rock (contact ?)	195	198	3
Clay, red	198	285	87
Rock, sand	285	288	3
Rock, lava	288	291	3
Rock, hard	291	395	104

STATE ENGINEER  
Salem, Oregon

# Well Record

STATE WELL NO. 1N/1-28M(1)  
COUNTY Multnomah  
APPLICATION NO.

OWNER: Griffith Rubber Mills

MAILING

ADDRESS:

2439 N. W. 22nd

LOCATION OF WELL: Owner's No.

CITY AND

STATE:

Portland, Oregon

NW 1/4 SW 1/4 Sec. 28 T. 1 N. S. R. 1 E. W.M.

Bearing and distance from section or subdivision

corner

Altitude at well

TYPE OF WELL: Drilled Date Constructed Aug. '46

Depth drilled 395' Depth cased 395'

Section 28

## CASING RECORD:

8 inch steel casing reduces to 6 inch at 188 feet  
6 inch steel casing set to 395 feet (or 207' of 6" casing)

## FINISH:

open end casing

## AQUIFERS:

Basalt

## WATER LEVEL:

32 feet below land surface August 1946

PUMPING EQUIPMENT: Type Turbin 8" Elect. H.P. 40  
Capacity 250 G.P.M.

## WELL TESTS:

Drawdown ft. after hours G.P.M.

Drawdown ft. after hours G.P.M.

USE OF WATER Industrial cooling rubber Temp. 58 °F. 19

SOURCE OF INFORMATION U.S.G.S. well schedule

DRILLER or DIGGER A. M. Jannsen

## ADDITIONAL DATA:

Log ☒ Water Level Measurements ☒ Chemical Analysis ☒ Aquifer Test

## REMARKS:

Well originally 120 feet deep - deepened by A. M. Jannsen on August 27, 1946 to 395 feet.



(1) OWNER:

Name Zerung Chemical  
Address 2201 N. W. 20th Ave.  
Portland, Oregon

(2) LOCATION OF WELL:

County MULTNOMAH Owner's number, if any—  
R. F. D. or Street No. 2201 NW 20th  
Bearing and distance from section or subdivision corner  
15 ft from West line, 102 ft from North  
line of Section 11, SE 1/4

(3) TYPE OF WORK (check):

new well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐  
at abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):

Domestic ☐ Industrial ☒ Municipal ☐  
Irrigation ☐ Test Well ☐ Other ☐

(5) EQUIPMENT:

Rotary ☐  
Cable ☒  
Dug Well ☐

(6) CASING INSTALLED:

Threaded ☐ Welded ☒

FROM	ft. to	ft.	Diam.	Gage or Wall
0	12 1/4	10	10	279
"	"	"	"	"
"	"	"	"	"
"	"	"	"	"
"	"	"	"	"
"	"	"	"	"

If gravel packed

Diameter of Bore	from ft.	to ft.
"	"	"
"	"	"
"	"	"
"	"	"
"	"	"

Type and size of shoe or well ring

Size of gravel:

Describe joint

(7) PERFORATIONS:

Type of perforator used

SIZE of perforations	in. length, by	in.
FROM ft. to ft.	per foot	No. of rows
" " "	" " "	" " "
" " "	" " "	" " "
" " "	" " "	" " "
" " "	" " "	" " "

SCREENS:

Give Manufacturer's Name, Model No. and Size

(8) CONSTRUCTION:

Was a surface sanitary seal provided? ☐ Yes ☒ No To what depth ft.

Were any strata sealed against pollution? ☒ Yes ☐ No

If yes, note depth of strata Surface Water

FROM ft. to ft.

METHOD OF SEALING

Driving Casing

(9) WATER LEVELS:

Depth at which water was first found 12 1/4 ft.

Standing level before perforating 25 ft.

Standing level after perforating ft.

Log Accepted by:

[Signed] \_\_\_\_\_ Dated \_\_\_\_\_, 19\_\_\_\_  
Owner

(10) WELL TESTS:

Was a pump test made? ☐ Yes ☒ No If yes, by whom?

Yield:	gal./min. with	ft. draw down after	hrs.
"	"	"	"
"	"	"	"

Artesian flow \_\_\_\_\_ g.p.m.

Shut-in pressure \_\_\_\_\_ lbs. per square inch.

Bailer test 30 GPM g.p.m. with 45 ft. drawdown

Temperature of water \_\_\_\_\_ Was a chemical analysis made? ☐ Yes ☒ No

Was electric log made of well? ☐ Yes ☒ No

(11) WELL LOG:

Diameter of well, 10 inches.

Total depth 126 ft. Depth of completed well 126 ft.

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

0 ft. to 10 ft.	10 ft. to 20 ft.	20 ft. to 61 ft.	61 ft. to 65 ft.	65 ft. to 124 ft.	124 ft. to 126 ft.	Formation
						Brown Clay
						Dry Sand
						Dry Gravel
						Black Sand
						Clay & Gravel
						Water Bearing Gravel

RECEIVED  
JUL 27 1957  
COUNTY ENGINEER  
CLATSOP COUNTY

Ground elevation at well site \_\_\_\_\_ feet above mean sea level.

Work started 5/22/57 19\_\_\_\_ Completed 6/12/57 19\_\_\_\_

Well Driller's Statement:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME A. M. Janssen Drilling Co.

(Person, firm, or corporation) (Typed or printed)

21075 S. W. Tualatin Valley Hi-way

Address Aloha, Oregon

Driller's well number \_\_\_\_\_

[Signed] Edna Janssen  
(Well Driller)

License No. 79 Dated July 26, 1957.

STATE ENGINEER  
Salem, Oregon

# Well Record

STATE WELL NO. 1N/1-28  
COUNTY Multnomah  
APPLICATION NO.

OWNER: A. Young & Son Iron Works

MAILING

ADDRESS: 2300 N. W. Nicolai Street

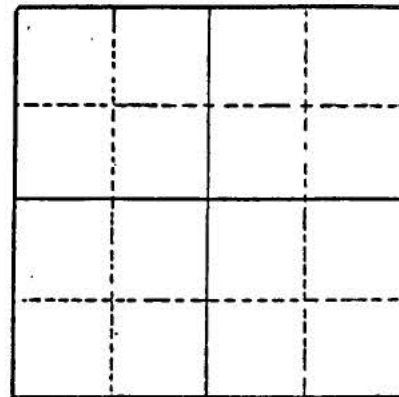
LOCATION OF WELL: Owner's No.

CITY AND

STATE:

..... 1/4 ..... 1/4 Sec. .... T. .... N. .... E. .... S., R. .... W., W.M.

Bearing and distance from section or subdivision  
corner



Section

Altitude at well

TYPE OF WELL: Drilled Date Constructed 1942

Depth drilled 77 Depth cased

CASING RECORD:

4 inches

FINISH:

AQUIFERS:

WATER LEVEL:

PUMPING EQUIPMENT: Type H.P.  
Capacity 10 G.P.M.

WELL TESTS:

Drawdown ..... ft. after ..... hours ..... G.

Drawdown ..... ft. after ..... hours ..... G.

USE OF WATER Industrial, tempering steel Temp. °F. ...., 10

SOURCE OF INFORMATION

DRILLER or DIGGER

ADDITIONAL DATA:

Log ..... Water Level Measurements ..... Chemical Analysis ..... Aquifer Test

REMARKS:

Not in use - 1960



Contractor's License No. 79 / Date 12/8/78 19



The original and first copy  
of this report are to be  
filed with the

# RECEIVED

## STATE ENGINEER WATER WELL REPORT

MAR 2 - 1972 STATE OF OREGON

(Please type or print)  
(Do not write above this line)

STATE ENGINEER  
SALEM, OREGON

STATE ENGINEER, SALEM, OREGON 97310

within 30 days from the date  
of well completion.

State Well No.

IN/1-30

State Permit No.

## (1) OWNER:

Name (b) (6)  
Address  
Portland, Oregon 97210

## (2) TYPE OF WORK (check):

New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐

If abandonment, describe material and procedure in Item 12.

## (3) TYPE OF WELL:

Rotary ☒ Driven ☐  
Cable ☐ Jetted ☐  
Dug ☐ Bored ☐

## (4) PROPOSED USE (check):

Domestic ☒ Industrial ☐ Municipal ☐  
Irrigation ☐ Test Well ☐ Other ☐

## (5) CASING INSTALLED:

Threaded ☐ Welded ☒  
6" Diam. from 0 ft. to 61 ft. Gage 250  
" Diam. from ft. to ft. Gage  
" Diam. from ft. to ft. Gage

## (6) PERFORATIONS:

Perforated? ☐ Yes ☒ No.

Type of perforator used

Size of perforations in. by in.  
perforations from ft. to ft.  
perforations from ft. to ft.  
perforations from ft. to ft.

## (7) SCREENS:

Well screen installed? ☐ Yes ☒ No

Manufacturer's Name  
Type Model No.  
Diam. Slot size Set from ft. to ft.  
Diam. Slot size Set from ft. to ft.

## (8) WELL TESTS:

Drawdown is amount water level is  
lowered below static level

Was a pump test made? ☐ Yes ☒ No If yes, by whom?

Yield: gal./min. with ft. drawdown after hrs.

airlift  
Bauer test 18 gal./min. with 95 ft. drawdown after 2 hrs.

Artesian flow g.p.m.

Temperature of water Depth artesian flow encountered ft.

## (9) CONSTRUCTION:

Well seal—Material used Cement  
Well sealed from land surface to 61 ft.  
Diameter of well bore to bottom of seal 9-7/8 in.  
Diameter of well bore below seal 6 in.  
Number of sacks of cement used in well seal 2 sacks  
Number of sacks of bentonite used in well seal 0 sacks  
Brand name of bentonite  
Number of pounds of bentonite per 100 gallons

of water lbs./100 gals.

Was a drive shoe used? ☐ Yes ☒ No Plugs Size: location ft.

Did any strata contain unusable water? ☐ Yes ☒ No

Type of water? depth of strata

Method of sealing strata off

Was well gravel packed? ☐ Yes ☒ No Size of gravel:

Gravel placed from ft. to ft.

## (10) LOCATION OF WELL:

County Multnomah Driller's well number  
1/4 1/4 Section 6.30 T.1 N. R.2 E.W.M.  
Bearing and distance from section or subdivision corner

## (11) WATER LEVEL: Completed well.

Depth at which water was first found 102 ft.  
Static level 25 ft. below land surface. Date 2/28/72  
Artesian pressure lbs. per square inch. Date

## (12) WELL LOG:

Diameter of well below casing 6"  
Depth drilled 125 ft. Depth of completed well 125 ft.

Formation: Describe color, texture, grain size and structure of materials;  
and show thickness and nature of each stratum and aquifer penetrated,  
with at least one entry for each change of formation. Report each change in  
position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
Top soil	0	2	
Brown clay	2	44	
Decomposed rock	44	49	
Soft broken rock	49	56	
Hard broken rock	56	78	
Hard gray rock	78	89	
Brown & gray rock	89	102	
Broken brown & gray rock	102	114	10 gpm
Brown & gray rock	114	119	
Broken brown & gray rock	119	125	8 gpm

Work started 2/24/72 19 Completed 2/28/72 19

Date well drilling machine moved off of well 2/28/72 19

## Drilling Machine Operator's Certification:

This well was constructed under my direct supervision.  
Materials used and information reported above are true to my  
best knowledge and belief.

[Signed] E. E. Jannsen Date 2/28/72 19  
(Drilling Machine Operator)

Drilling Machine Operator's License No. 235

## Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is  
true to the best of my knowledge and belief.

Name A. M. Jannsen Drilling Co.  
(Person, firm or corporation) (Type or print)

Address 21075 S.W. Tualatin Valley Hwy, Aloha, Or

[Signed] E. E. Jannsen  
(Water Well Contractor)

Contractor's License No. 79 Date 2/28/72 19



WATER WELL REPORT  
STATE OF OREGON

AUG 18 1983

State Well No. W11E-30

PLEASE TYPE OR PRINT IN INK  
WATER RESOURCES DEPT.  
SALEM, OREGON

State Permit No. \_\_\_\_\_

(1) OWNER:

(b) (6)  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
City Portland State OR

(2) TYPE OF WORK (check):

New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐

If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:

Rotary Air ☒ Driven ☐ Domestic ☒ Industrial ☐ Municipal ☐  
Rotary Mud ☐ Dug ☐ Irrigation ☐ Test Well ☐ Other ☐  
Bored ☐ Thermal: Withdrawal ☐ Reinjection ☐

(4) PROPOSED USE (check):

(5) CASING INSTALLED: Steel ☒ Plastic ☐  
Threaded ☐ Welded ☐

6 Diam. from +2 ft. to 53 ft. Gauge 250  
Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Gauge \_\_\_\_\_

(6) LINER INSTALLED:

Diam. from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Gauge \_\_\_\_\_

(6) PERFORATIONS:

Perforated? ☐ Yes ☒ No

Type of perforator used \_\_\_\_\_

Size of perforations in. by in.  
perforations from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
perforations from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
perforations from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

(7) SCREENS:

Well screen installed? ☐ Yes ☒ No

Manufacturer's Name \_\_\_\_\_ Model No. \_\_\_\_\_  
Type \_\_\_\_\_  
Diam. \_\_\_\_\_ Slot Size \_\_\_\_\_ Set from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
Diam. \_\_\_\_\_ Slot Size \_\_\_\_\_ Set from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level

Was a pump test made? ☐ Yes ☒ No If yes, by whom?

J: \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.  
" \_\_\_\_\_

Air test 15 gal./min. with drill stem at 220 ft. 1 hrs.

Bailer test \_\_\_\_\_ gal./min. with \_\_\_\_\_ ft. drawdown after \_\_\_\_\_ hrs.

Artesian flow \_\_\_\_\_ g.p.m.

Temperature of water \_\_\_\_\_ Depth artesian flow encountered \_\_\_\_\_ ft.

(9) CONSTRUCTION:

Special standards: Yes ☐ No ☒

Well seal—Material used Cement + 5.20 Bentonite

Well sealed from land surface to 53 ft.

Diameter of well bore to bottom of seal 10 in.

Diameter of well bore below seal 6 in.

Number of sacks of cement used in well seal 13 sacks

How was cement grout placed? Placed

Was pump installed? \_\_\_\_\_ Type \_\_\_\_\_ HP \_\_\_\_\_ Depth \_\_\_\_\_ ft.

Was a drive shoe used? ☐ Yes ☒ No Plugs \_\_\_\_\_ Size: location \_\_\_\_\_ ft.

Did any strata contain unusable water? ☐ Yes ☒ No

Type of Water? \_\_\_\_\_ depth of strata \_\_\_\_\_

Method of sealing strata off \_\_\_\_\_

Was well gravel packed? ☐ Yes ☒ No Size of gravel: \_\_\_\_\_

Gravel placed from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.

(10) LOCATION OF WELL:

County Multnomah Driller's well number \_\_\_\_\_  
Tax Lot # \_\_\_\_\_ Lot \_\_\_\_\_ Blk \_\_\_\_\_ Subdivision \_\_\_\_\_  
Address at well location: 6335 N.W. Cornell Rd  
Portland

(11) WATER LEVEL: Completed well.

Depth at which water was first found 85 ft.

Static level 80 ft. below land surface. Date 8-18-83

Artesian pressure \_\_\_\_\_ lbs. per square inch. Date \_\_\_\_\_

(12) WELL LOG:

Diameter of well below casing 6

Depth drilled 240 ft. Depth of completed well 240 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
TOP SOIL	0	2	
BAN CLAY	2	16	
Yellow clay	16	21	
Blue clay	21	38	
BAN Sandstone	38	41	
Med Grey Rock	41	78	
Seamy Blue Rock	78	197	
Brow Porous Rock	197	202	
Seamy Blue Rock	202	221	
BAN Porous Rock	221	228	
Seamy Blue Rock	228	240	

Work started 8-18 19 83 Completed 8-18 19 83

Date well drilling machine moved off of well 8-18 19 83

(unbonded) Water Well Constructor Certification (if applicable):

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.

(Signed) \_\_\_\_\_ Date \_\_\_\_\_ 19 \_\_\_\_\_

Bonded Water Well Constructor Certification:

Bond 140898 Issued by: ORE Auto Ins Co  
(number) (Surety Company Name)

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Name TURNER DRILLING Co (Person, firm or corporation)

Address 14885 N.W. Cillihaw Rd Portland (Type or print)

(Signed) Don Fiechi Water Well Constructor

Date 8-18 19 83

NOTICE TO WATER WELL CONSTRUCTOR

The original and first copy of this report  
must be filed with the

WATER RESOURCES DEPARTMENT,  
SALEM, OREGON 97310

within 30 days from the date of well construction.

SP-45292-6800



## NOTICE TO WATER WELL CONTRACTOR

The original and first copy  
of this report are to be  
filed with the

STATE ENGINEER, SALEM, OREGON 97310  
within 30 days from the  
of well completion.

## WATER WELL REPORT

STATE OF OREGON

(Please type or print)

(Do not write above this line)

State Well No. 11/132

State Permit No. \_\_\_\_\_

## (1) OWNER:

Name (b) (6)

Address (b) (6) Portland, Ore.

## (2) TYPE OF WORK (check):

New Well ☐ Deepening ☒ Reconditioning ☐ Abandon ☐

If abandonment, describe material and procedure in Item 12.

## (3) TYPE OF WELL:

Rotary ☐ Driven ☐  
Cable ☐ Jetted ☐  
Dug ☐ Bored ☐

## (4) PROPOSED USE (check):

Domestic ☒ Industrial ☐ Municipal ☐  
Irrigation ☐ Test Well ☐ Other ☐

## CASING INSTALLED:

Threaded ☐ Welded ☒

8" Diam. from 0 ft. to 42 ft. Gage 250

6" Diam. from 0 ft. to 123 ft. Gage 250

" Diam. from ft. to ft. Gage

## (5) PERFORATIONS:

Perforated? ☐ Yes ☒ No.

Type of perforator used

Size of perforations in. by in.

perforations from ft. to ft.

perforations from ft. to ft.

perforations from ft. to ft.

perforations from ft. to ft.

perforations from ft. to ft.

## (7) SCREENS:

Well screen installed? ☐ Yes ☒ No

Manufacturer's Name

Type Model No.

Diam. Slot size Set from ft. to ft.

Diam. Slot size Set from ft. to ft.

## (8) WATER LEVEL: Completed well.

Static level 48 ft. below land surface Date 8/26/69

Artesian pressure lbs. per square inch Date

## (9) WELL TESTS:

Drawdown is amount water level is  
lowered below static levelWas a pump test made? ☐ Yes ☒ No If yes, by whom?

Yield: gal./min. with ft. drawdown after hrs.

Ball test 45 gal./min. with 20 ft. drawdown after 4 hrs.

Artesian flow g.p.m. Date

Temperature of water Was a chemical analysis made? ☐ Yes ☒ No

## (10) CONSTRUCTION:

Well seal—Material used Bentonite, Cement &amp; Sand

Depth of seal 35 ft.

Diameter of well bore to bottom of seal 8 in.

Were any loose strata cemented off? ☐ Yes ☒ No DepthWas a drive shoe used? ☒ Yes ☐ NoDid any strata contain unusable water? ☐ Yes ☒ No

Type of water? depth of strata

Method of sealing strata off

Was well gravel packed? ☐ Yes ☒ No Size of gravel:

Gravel placed from ft. to ft.

## (11) LOCATION OF WELL:

County Multnomah Driller's well number

1/4 1/4 Section 32 T. 1N. R. 1E W.M.

Bearing and distance from section or subdivision corner

## (12) WELL LOG: Cased to Bottom

Diameter of well below casing

Depth drilled 123 ft. Depth of completed well 123 ft.

Formation: Describe color, texture, grain size and structure of materials;  
and show thickness and nature of each stratum and aquifer penetrated,  
with at least one entry for each change of formation. Report each change  
in position of Static Water Level as drilling proceeds. Note drilling rates.

MATERIAL	From	To	SWL
Dug well depth was	0	29	
Gravel, cemented	29	40	28
Gravel, coarse	40	45	
Gravel and Clay	45	50	
Sand, real fine	50	60	
Sand, fine, water bearing			
2 to 3 GPM.	60	70	48
Gravel & Clay	70	95	
Gravel, coarse	95	100	
Sand, blue	100	108	
Clay, brown	108	112	
Gravel & coarse sand			
Water bearing	112	123	

Work started 8/20 15 19 69 Completed 8/26 1969

Date well drilling machine moved off of well 8/29 1969

## Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.

(Signed) E. C. Engelhart Date 9/18, 1969  
(Drilling Machine Operator)

Drilling Machine Operator's License No. 539

## Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME HAAKON BOTTLNER DRILLING COMPANY  
(Person, firm or corporation) (Type or print)

Address 3424 S.E. 174<sup>th</sup> AVE., PORTLAND, ORE.  
Zip No 97236

(Signed) Haakon Bottner  
(Water Well Contractor)

Contractor's License No. 109 Date Sept. 20, 1969

ATTACHMENT 13

TELEPHONE USE REPORT

CALL FROM/TO:

Stanford Nudelman

COMPANY/TITLE:

S.J. Nudelman and Son Inc.

PHONE NO.:

(503) 226-4051

DATE:

3/22/89

TOWN:

Portland

TIME:

10:05

SUMMARY OF CALL:

Question: Did you store oil before it was picked-up by Harbor oil?

Answer: No, they removed the oil before the transformers were brought here.

Question: How many workers are at the facility?

Answer: One besides my son and myself.

Question: What direction does the runoff from rain go?

Answer: It doesn't go anywhere, there are two storm drains here.

Question: Do you know how PCB greater than 1ppm could have been placed outside the fence?

Answer: My only guess is from the BPA transformers, but they are all less than 1ppm.

Michael J. Zoltick

Signature

ATTACHMENT 14





## Department of Environmental Quality

*J*  
*DB - PC please*

522 S.W. FIFTH AVENUE, BOX 1760, PORTLAND, OREGON 97207 PHONE: (503) 229-5696

MAR 11 1985

Gary O'Neal, Director  
Air & Toxics Division  
U.S. EPA  
Region X  
1200 Sixth Avenue  
Seattle, WA 98101

Re: HW 9.05, PCB

*Gary*  
Dear Mr. O'Neal:

This letter responds to your February 8, 1985 inquiry about our cleanup responses to polychlorinated biphenyl (PCB) spills and contamination. Oregon Administrative Rules, Chapter 340, Division 108 (see enclosed) are our regulations dealing with spill response for all hazardous wastes and substances, including PCBs. This spill response regulation establishes the spiller's liability and allows the Department to specify clean up requirements.

In the absence of federal regulations or guidance, we have used the following cleanup standards for PCB spills and releases:

<u>Degree of Public Access to Spill Site/Residual Contamination</u>	<u>Cleanup Standard</u>
Restricted area (i.e., inside fenced enclosure such as substation)	50 ppm or less
Limited public access (i.e., industrial area, forested area, limited access right-of-ways)	10 ppm or less
Public access (i.e., residential area, adjacent to facility such as school, park, etc.)	1 ppm or less

In addition to these general guidance levels, special circumstance may:

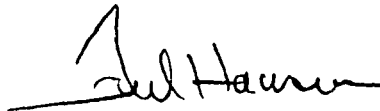
- (1) Allow a less stringent standard (i.e., such as Puget Sound Plywood cleanup in Eugene where spill occurred in an industrial area; surrounding areas were being served by public water whose uppermost aquifer was subject to other contamination because of industrial zoning and activity; and extensive soil removal had already occurred leaving only a small mass of original material at a concentration of 100 ppm), or

Gary O'Neal, Director  
Page 2

- (2) Dictate a more stringent standard be imposed (i.e., potential contamination of sole source aquifer, sensitive wetlands area, or unique aquatic habitat).

Thank you for requesting our comments. If you have additional questions, feel free to contact Richard Reiter or Gary Calaba in the Hazardous and Solid Waste Division at (503) 229-5913. We would appreciate being consulted as you move toward a final determination in this matter.

Sincerely,



Fred Hansen  
Director

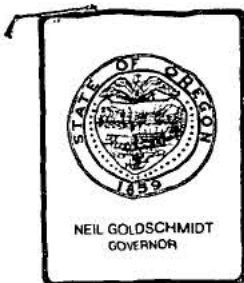
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ZB4338  
Enclosure

cc: Anita Frankel, Chief, Pesticides & Toxic Substances Branch, EPA X  
Mike Downs, Administrator, Hazardous & Solid Waste Division, DEQ  
Fred Bolton, Administrator, Regional Operations, DEQ  
Janet Gillaspie, Northwest Region, DEQ  
Dave St. Louis, Willamette Valley Region, DEQ  
~~Gary Grimes, Southwest Region, DEQ~~  
Dick Nichols, Central Region, DEQ  
Steve Gardels, Eastern Region, DEQ

State of Oregon  
DEPARTMENT OF ENVIRONMENTAL QUALITY

**RECEIVED**  
MAR 13 1985

**SOUTHWEST REGION OFFICE**



## Department of Environmental Quality

811 SW SIXTH AVENUE, PORTLAND, OREGON 97204-1390 PHONE (503) 229-5696

March 1, 1989

Stanford J. Nudelman  
S.J. Nudelman & Son Inc.  
2707 N.W. Nela Street  
Portland, Oregon

RECEIVED  
MAR 3 1989  
OREGON OPERATIONS OFFICE  
EPA-REGION 10

Dear Mr. Nudelman:

Per our conversation on Feb. 28, 1989, this letter is to confirm our scheduled site visit to Nudelman and Sons Inc., located at 2707 N.W. Nela Street, in approximately two weeks (to be confirmed later at your request).

Nudelman and Sons Inc. has been identified by the United States Environmental Protection Agency (EPA) Region X as requiring a Preliminary Assessment (PA) to profile the nature and extent of past waste disposal activity at the site. PAs are intended to identify potential public health and/or environmental hazards at the site, identify sites that require emergency action, and to establish priorities for sites requiring in-depth investigations.

The EPA has been given the authority under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 to gain access to sites where hazardous substances may have been generated, stored, treated, disposed, or transported. The Oregon Department of Environmental Quality (DEQ) is given similar authority under the Oregon Environmental Cleanup Law (ORS 466.540 to 466.590) of 1987. In this capacity, DEQ is an authorized representative of EPA (Cooperative Agreement V000332-01, Amendment 2), and is acting on their behalf as field investigators.

A site visit is performed as part of the PA to determine the impact or potential impact on the environment of any hazardous substances which may exist in an uncontrolled manner at your facility. The PA is based on readily available information about the site and is not a full investigation or characterization of the site. A PA is subsequently detailed in a report, providing a basis for determining if further in-depth investigations are required.

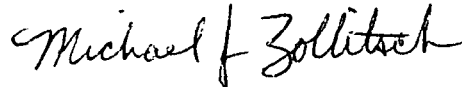
The site visit can be expedited if information can be prepared before the site walk-through and interview. The enclosed checklist identifies some of the items needed to complete the Preliminary Assessment for EPA. For this particular site, available information on the following should be included:

Any information concerning the handling of oil that may have contained PCB's or oil from transformers, waste manifests and procedures for handling hazardous substances.

Your company may assert a claim of confidentiality for any information entitled to protection under 40 CFR Part 2, Subpart B, or ORS 192.501 and 192.502 by designating data you believe is entitled to such protection and submitting that data separately.

I expect that a representative of the DEQ Northwest Regional office will participate in the inspection. If you have any questions regarding our site visit, please contact me at (503) 229-6931. Please contact Tom Robertson, USEPA, at (503) 326-7024 if you have any questions regarding the purpose for this inspection.

Sincerely,



Michael J. Zollitsch  
Remedial Action Specialist  
Site Assessment Section  
Environmental Cleanup Division

HC:hc

Enclosures

cc: Tom Robertson, EPA-000, Region X  
DEQ-Northwest Region

(archived) *Nudelman & Son, Inc*  
(x file Marathon site)  
**NORTHWEST GEOLOGICAL SERVICES, INC.**

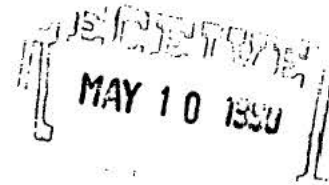
Consulting Geologists and Hydrogeologists  
2505 N.E. 42nd Avenue, Portland OR 97213-1201  
503-249-1093

Department of Environmental Quality  
Environmental Cleanup Division  
811 S.W. Sixth Avenue  
Portland, OR 97205

8 May 1990

Attention: Mike Zollitch  
Site Assessment Section

Subject: Preliminary Assessment  
Nudelman & Son, Inc  
2707 N.W. Nela Street  
Portland, Oregon



Dear Mr. Zollitch:

The purpose of this letter is to bring to your attention an error in the above referenced Preliminary Assessment (PA). In the PA, you relied upon a report prepared by us for the property east of the Nudelman & Son, Inc. property (Preliminary Assessment of Potential Contamination, 2615-2619 N.W. Industrial St., Guilds Lake Area, Portland, Oregon, dated 25 October 1988). In that report we inferred that the west boundary of the former City landfill coincided with the property line between Nudelman & Son, and Marathon's property. In fact, this inference was in error.

Additional study of the Marathon site has determined that the boundary of the landfill appears to coincide with the west boundary of the Nudelman and Son property. We now infer from air photos of the landfill that the Nudelman & Son property is underlain by ashes from the incinerator and unburned landfill debris, rather than by dredge fill as inferred in the Marathon PA. This information is presented in the Focused Remedial Investigation, dated January 1990, for the Marathon U.S. Realties facility, prepared under Order on Consent DEQ# ESCR-NWR-89-02. Bruce Gilles of the Site Response Section is the DEQ Project Manager for the studies of Marathon's site.

If you have any questions about our studies of the Marathon property Mr. Gilles is very familiar with them. Also, feel free to call us at the letterhead number.

Very truly yours,  
Northwest Geological Services, Inc.

*C.F. Kienle, Jr.*  
C.F. (Rick) Kienle, Jr.  
Vice President

cc: Bruce Gilles  
Tom Lindley  
Graham Brown

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CLERK OPERATIONS  
1-11-90